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REPORT OF PHASE I ENVIRONMENTAL ASSESSMENT FORT SHERIDAN IL
12/1/2005
MACTEC ENGINEERING AND CONSULTING, INC

REPORT OF PHASE I
ENVIRONMENTAL SITE ASSESSMENT
NAVSTA FORT SHERIDAN
NAVAL REGION MIDWEST FAMILY
HOUSING PRIVATIZATION

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Disclaimer and Limitation of Liability (To be included on 1st page of each Report)

This Report is intended for the exclusive use and benefit of Forest City Military Communities, LLC and Forest City Washington, Inc. (collectively, "Client"). However, MACTEC either has extended, or is willing to extend, an offer to rely upon or use this Report ("Offer") to (i) the United States of America, Department of the Navy, (ii) Lehman Brothers, Inc., its successors, affiliates, and permitted assigns, and (iii) the following third parties: (a) the authorized rating agency, (b) prospective bond or other security holders, (c) the trustees of a Trust created to hold the loan, or securities or certificates representing a participation or other interest therein, and (d) the loan servicer, as part of a securitized transaction, as third party beneficiaries of that certain contract between Client and MACTEC made as of July 5, 2005 ("Agreement") and this Report (individually, "Beneficiary" and, collectively, "Beneficiaries"). The Offer is extended to you as a Beneficiary as if this Report was prepared for and addressed to you, which said Offer, and your ability to accept the Offer, are expressly conditioned upon (i) the limitations placed on the scope, nature and type of services performed by MACTEC under the Agreement, which are described in the Agreement and this Report, (collectively, "Services") and (ii) your agreement to be bound by the terms and conditions contained in the Agreement and this Report, all of which are incorporated herein by reference. Reliance upon or use of this Report and the contents hereof by you for any purpose whatsoever constitutes acceptance of the Offer and the foregoing conditions to such acceptance and makes you a third party beneficiary of the Agreement and this Report. A copy of the Agreement is available from MACTEC upon request, and certain substantive terms and conditions contained therein are attached to this Report as Attachment "A" for your information, in addition to a limitation of liability that MACTEC might incur as a result of the Agreement, the Services performed by MACTEC under the Agreement ("Services") and the Reports issued by MACTEC pursuant to the Agreement, including this Report ("Limitation of Liability"), as follows:

A LIMITATION OF MACTEC'S LIABILITY WAS A MATERIAL CONSIDERATION FOR MACTEC'S WILLINGNESS TO PERFORM THE SERVICES. IN THOSE JURISDICTIONS WHERE REQUIRED, YOU HEREBY ACKNOWLEDGE THAT YOU HAVE RECEIVED SPECIAL CONSIDERATION OF TEN DOLLARS (\$10.00) AND WAIVE ANY AND ALL RIGHTS TO DISPUTE THE RECEIPT AND SUFFICIENCY THEREOF. TO THE MAXIMUM EXTENT PERMITTED BY LAW, CLIENT AND ALL BENEFICIARIES, INCLUDING YOU, EXPRESSLY AGREE, FOR THEMSELVES AND ANYONE CLAIMING BY, THROUGH OR UNDER THEM, THAT THE LIABILITY OF MACTEC, ITS PARENT, SUBSIDIARIES, AFFILIATES AND SUBCONTRACTORS, INCLUDING THEIR RESPECTIVE OFFICERS, DIRECTORS, EMPLOYEES, PRINCIPALS, PARTNERS, AGENTS, SUCCESSORS AND ASSIGNS, ("INDEMNITEES"), FOR ANY AND ALL CAUSES OF ACTION WHATSOEVER, INCLUDING, WITHOUT LIMITATION, TORT, CONTRACT, STRICT LIABILITY, INDEMNITY OR OTHERWISE, ARISING OUT OF, OR IN CONNECTION WITH, ANY PROFESSIONAL SERVICES PERFORMED, AND REPORTS ISSUED, PURSUANT TO THE AGREEMENT (BUT SPECIFICALLY EXCLUDING BODILY INJURY (INCLUDING DEATH), PROPERTY DAMAGE AND ANY OTHER CAUSES OF ACTION ARISING FROM SERVICES WHICH DO NOT INVOLVE THE EXERCISE OF PROFESSIONAL ENGINEERING OR ARCHITECTURAL EXPERTISE, DISCERNMENT, TRAINING OR JUDGMENT), SHALL BE LIMITED TO THE AGGREGATE SUM, INCLUDING AMOUNTS PAID TO CLIENT AND ANY AND ALL BENEFICIARIES, INCLUDING YOU, TO WHOM REPORTS ARE PROVIDED, ATTORNEYS' FEES AND ALL OTHER LITIGATION COSTS AND EXPENSES INCURRED BY MACTEC, IF ANY, OF ONE MILLION DOLLARS (\$1,000,000.00). CLIENT, IN ITS OWN RIGHT AND ON BEHALF OF THE BENEFICIARIES, INCLUDING YOU, TO WHOM IT INTENDED TO PROVIDE, AND IN FACT HAS PROVIDED OR WILL PROVIDE, ANY REPORT FOR RELIANCE, HAS ACKNOWLEDGED AND AGREED THAT (i) IT HAS HAD THE OPPORTUNITY TO NEGOTIATE THE TERMS OF THIS LIMITATION OF LIABILITY AND THAT THE LIMITATION OF LIABILITY AMOUNT MAY DIFFER FROM THE AMOUNT OF PROFESSIONAL LIABILITY INSURANCE REQUIRED OF MACTEC UNDER THE AGREEMENT, AND (ii) THE NEED FOR AND EXISTENCE, IF NOT THE PRECISE IDENTITY, OF THE BENEFICIARIES WAS FORESEEABLE AND KNOWN BY CLIENT.

Attachment "A" (To the Report)

STANDARD OF CARE. MACTEC will perform the Services in accordance with the Standard of Care. MACTEC will provide Client with a copy of the applicable ASTM standard(s) upon written request. Except where specified otherwise in MACTEC's proposal, a Phase I ESA and PCS will be a non-invasive survey of the Property that is the subject of the Services. **NO OTHER WARRANTY, EXPRESS OR IMPLIED, IS MADE OR INTENDED, AND THE SAME ARE SPECIFICALLY DISCLAIMED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND THE OUTCOME OR RESULT OF ANY CASE OR PROJECT FOR WHICH CONSULTANT MAY BE RETAINED TO PROVIDE FORENSIC SERVICES AND/OR TESTIMONY.**

OFFER. Notwithstanding any other provision in this Agreement to the contrary, particularly including, but not limited to, Section 1.07 (a) above, Client acknowledges that the reports to be prepared by MACTEC as a result of the Services performed by it under this Agreement (individually, "Report" and, collectively, "Reports") are intended for the exclusive use and benefit of, and may be relied upon only by, (i) Client, (ii) Lehman Brothers, Inc., its successors, affiliates, and permitted assigns, and (iii) the following third parties: (a) the authorized rating agency, (b) prospective bond or other security holders, (c) the trustees of a trust created to hold the loan, or securities or certificates representing a participation or other interest therein, and (iv) the loan servicer, as part of a securitized transaction. Those parties named in (ii) through (iii) above hereby are specifically made third party beneficiaries of this Agreement and the Reports (individually, "Beneficiary" and, collectively, "Beneficiaries"). In furtherance of the foregoing, MACTEC hereby offers reliance upon and use of the Reports, as aforesaid, to each Beneficiary ("Offer"). Each Beneficiary may accept the Offer by receiving a copy of, and relying upon or otherwise using, a Report.

ACCEPTANCE OF OFFER. Owner, Consultant and each Beneficiary agree that receipt, reliance upon or use of the Reports and the contents thereof by a third party for any purpose whatsoever constitutes acceptance of the Offer and the foregoing conditions to such acceptance, and makes that third party a third party Beneficiary of this Agreement and the Reports. Reliance upon or use of the Reports for any purpose whatsoever by an individual or entity which is neither a party to this Agreement, nor a Beneficiary, is entirely at the peril of that individual or entity. Owner and Beneficiaries further acknowledge and agree that the contents of each Report will only reflect MACTEC's findings as to the conditions that existed at the time the Services referenced therein were performed and may be based in part or in whole on facts and/or assumptions provided to, but not verified independently by, MACTEC, and that MACTEC makes no representations or warranties as to the condition of the subject of any Report subsequent to the date on which the applicable Services were performed or with respect to any facts and/or assumptions provided to, but not verified independently by, MACTEC.

INDIRECT DAMAGES. Neither MACTEC nor you shall be responsible to the other party or any third party for any indirect or incidental damages (including, but not limited to, loss of use, income, profits, financing or reputation) arising out of or relating to the Agreement, this Report or the performance of the Services that gave rise to this Report.

NOTICE REGARDING ASSUMPTION OF RISK AND ADDITIONAL SERVICES OPTIONS. Since a Phase I ESA and a PCS is a survey and not an invasive investigation, and a Phase II ESA is a minimally invasive investigation that utilizes commonly used exploration methods (e.g. drilling, subsurface sampling) to take groundwater, soil and other Samples only in limited areas where the presence of contaminants is suspected, Client understands there is a risk that (i) certain past and present conditions, latent and otherwise, might not be detected and reported by MACTEC and (ii) contamination of previously uncontaminated soils and/or water, including water-bearing strata, which are capable of spreading Contaminants off-site, as well as on-site, might occur even if the Services are performed in accordance with the Standard of Care which is applicable to the Services. Such conditions include, but are not limited to, the presence of UST's that may have been installed and/or removed prior to performing a Phase I or Phase II ESA, short-term uses (generally less than 10 years) that may not be reflected in aerial photographs or other information that is readily available at the time a Phase I ESA is performed, the presence of contamination in areas where it was not suspected at the time a Phase II is performed, or conditions in roofs, buildings and other structures, and various components thereof, that, given the

non-invasive nature of the Services and/or limited visibility or accessibility, are not readily observable at the time a PCS is performed.

Client understands that a PCS is normally performed by a person who possesses a general knowledge of multiple building systems, but is not a specialist in any one of those systems. If Client wishes to have one or more systems surveyed by more experienced personnel, Client has the option to request MACTEC to perform a more extensive PCS, as additional Services, with a corresponding increase in compensation being payable to MACTEC. Also, a façade, invasive, and other special inspection(s) can be performed for roofs, buildings and other structures, and various components thereof, in lieu of a visual survey as additional Services, with a corresponding increase in compensation being payable to MACTEC. If Client does not request such additional Services, Client agrees that MACTEC is in no way liable for any Claims or Liabilities for a condition(s) which such additional Services might have detected. Client agrees that MACTEC is not an insurer or guarantor of the property that is the subject of the Services or the value thereof.

DAMAGES. In the event that MACTEC fails to perform in accordance with the Standard of Care which is applicable to the Services, Client agrees that the damages for which MACTEC shall be liable shall be limited to that proportion of damages which is attributable to MACTEC's percentage of fault which, in no event, shall exceed the limitation of liability set forth in Section 1.07 (c) of the Agreement. Further, in the event that MACTEC fails, in either an ESA or a PCS, to correctly report an environmental or deficient condition in violation of the applicable Standard of Care, the liability of MACTEC, and Client's exclusive remedy, for any and all damages which result therefrom is limited to the lesser of (i) the cost to either remedy the deficient condition or (ii) the resultant diminution in value of the Property on which the ESA was performed that is actually realized by Client, but in no event shall MACTEC be liable for the entire cost of replacing the Property or portion thereof that is subject to the deficient condition; provided, in the event that MACTEC has performed a PCS in violation of the applicable Standard of Care and the Property or portion thereof that is subject to the deficient condition cannot be remedied for a reasonable cost, but must be replaced prior to the end of its useful life, as its useful life was represented by MACTEC, the aforesaid liability of MACTEC will be limited to the value of the useful life of the Property or portion thereof for which Client did not receive the benefit of its represented useful life. This value shall be an amount equal to the full replacement cost of that Property or portion thereof, if and when replaced, multiplied by a fraction, the numerator of which is the amount of said useful life which was lost by the premature replacement and the denominator of which is the useful life, as represented by MACTEC, of the replaced Property or portion thereof that was ended prematurely.

EXECUTIVE SUMMARY

MACTEC Engineering and Consulting, Inc. (MACTEC) was contracted by Forest City Washington to perform a Phase I Environmental Site Assessment of the Naval Station (NAVSTA) which comprises a portion of Fort Sheridan located immediately east of Sheridan Road in the City of Highland Park and City of Highwood, Lake County, Illinois, hereafter referred to as the subject property or subject site. The site inspections were performed on July 22 and July 27, 2005 by Ms. Carmen Y. Yung and Mr. Andrew Hastings of MACTEC.

The subject site investigation consisted of interviewing people knowledgeable about the site; reviewing environmental regulatory databases; reviewing historical information; and conducting a site assessment. The purpose of this investigation was to identify areas of environmental concern associated with the site.

PROPERTY DESCRIPTION

The subject site consists of approximately 206 acres of land on two non-contiguous parcels and is used for residential housing by government employees. A total of 92 housing buildings and 57 administrative and commercial buildings were identified on the Navy property.

MACTEC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property except for the following:

- Underground storage tanks (USTs) were removed from ten on-site buildings: Building 141, 142, 162, 208, 209, 368, 369, 377, 384, and 440. Contaminated soil was also excavated and removed. Soil samples were reportedly collected from the tank excavations and compared to the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Corrective Action Objectives (TACO) Tier 1 residential soil remediation objectives. Closure soil sample results at Buildings 141, 208, 369, 377, 384 and 440 indicated that petroleum constituents of concern were below the IEPA TACO Tier 1 residential soil remediation objectives; therefore, no further investigation or remediation appears to be necessary at these locations. No Further Remediation (NFR) letters were obtained from the IEPA for leaking underground storage tanks (LUSTs) at Buildings 142, 209, and 368. Therefore, potentially contaminated soils associated with a LUST may remain at Building 162 and are considered a recognized environmental condition (Sections 5.5 and 6.4).
- Four 2,000-gallon heating oil USTs were reportedly abandoned in-place at each of the following buildings: Buildings 800 through 806. No documentation of soil or residual product removal was provided. One soil sample collected at Building 801 had detected concentrations of polynuclear aromatic hydrocarbons (PNAs) at a level which exceeded the IEPA TACO Tier 1 residential soil remediation objectives. Therefore, potentially contaminated soils associated with these heating oil LUSTs are considered a recognized environmental condition (Sections 5.4 and 6.4).
- A total of 50 ASTs, presumably used to store heating oil, were located on the subject site. Most of the ASTs were observed inside concrete containment. Many of the concrete containment structures had pipes which led to the ground outside, and valves in these pipes were observed to have been left open. Staining inside the containment and/or around the pipe draining from the containment to the surrounding ground was observed at several locations. Therefore, potentially contaminated soils associated with these ASTs are considered a recognized environmental condition (Sections 5.4 and 6.5).

- Petroleum-product related staining was observed in the vicinity of one air compressor located inside Building 378. Trenches that appeared to be associated with former hydraulic lifts were also observed in the area of staining inside Building 378. Potentially contaminated soils associated with this staining and associated trenches are considered a recognized environmental condition (Section 6.7).
- Three former hydraulic lifts were observed inside Building 368, a former auto repair shop. Floor staining was observed around the former hydraulic lifts. Potentially contaminated soils associated with leaking hydraulic lifts are considered a recognized environmental condition (Section 6.3 and 6.7).
- Remediation is reported to have been completed at the following Installation Restoration (IR) sites: Coal Storage Area (CSA) #3, Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site 12 - Vehicle & Equipment Storage Area #8. Closure report information has been reviewed by MACTEC for Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site 12 - Vehicle & Equipment Storage Area #8 and results are below TACO residential objectives. However, no closure report information was obtained for Coal Storage Area (CSA) #3, which extends onto the subject property at Bartlett Ravine. Therefore, pending receipt of information or sampling results verifying clean closure of Coal Storage Area (CSA) #3, this site is considered a recognized environmental condition to the subject property (Section 5.4).
- Three landfills are currently present on the subject property: Army IR Site #2 - Landfill #5, Army IR Site #3 - Landfill #6, and Army IR Site #4 - Landfill #7. The landfills are reportedly capped, but are subject to siting restrictions and long term monitoring. Information has not been made available to MACTEC with regard to methane sampling at the landfills and closure. These landfills are a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #5 - Excavation Area #8 is a disturbed area related to a bluff stabilization project, also believed to represent the former location of a borrow pit area used in the production of bricks. Previous soil sampling results had PNA concentrations which were above TACO Tier 1 residential objectives to 10 feet deep. A Phase III investigation reported fill materials with construction debris to a depth of eight feet. Information with regard to closure of this site was requested and has not been received. This IR site is considered a recognized environmental condition to the subject property (Section 5.4).
- Wells Ravine Tributary North Extension, a northern tributary of Wells Ravine that extends toward Building 369 (Former Youth Center and adjacent playground) is an Army IR site located on the subject property. Fill material associated with this tributary was identified during the interim remedial actions implemented at Landfill #7. During the installation of the re-routed storm sewer around Landfill #7, construction equipment unearthed municipal refuse and other waste. Reportedly, Phase II and III sampling was conducted and samples were analyzed for VOCs, SVOCs, metals, pesticides, PCBs, dioxins and explosives. PNAs and lead were detected above TACO Tier 1 residential objectives. This fill site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #7 - Vehicle & Equipment Storage Area #3 is a 6.7-acre area west of Patten Road and north of Building 142 and contiguous to the north side of former Building 208. Information with regard to these closure activities was requested and has not been received. This site is considered a recognized environmental condition to the subject property (Section 5.4).

- Army IR Site #11 – Vehicle & Equipment Storage Area #7 has historically incurred leaks and spills from military vehicles and equipment. Previous soil sampling results had detected PNA concentrations which were above TACO Tier 1 residential objectives in surface and subsurface soil. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Prior investigations conducted at Army IR Site #13 – Bartlett Ravine consisted of sampling of surface water from the ravine and its outfall, and sediment from the ravine and beach outfall area. PNAs and pesticides were reported at concentrations above TACO Tier 1 residential objectives in surficial soils and sediment samples collected from the ravine and beach outfall area. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #15 – Van Horne Ravine is located on Navy property between Boles Loop and McKibben Road east of Patten Road. Effluent from Building 361, a former photo shop and Building 368, a former auto shop, and from construction debris in the area, were reported to flow to Van Horne Ravine. PNA concentrations were reported above TACO Tier 1 residential objectives in sediment samples collected from the ravine and its outfall. Bromodichloromethane, chloroform and chloride were detected in surface water samples at concentrations above surface water criteria. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #16 – Shenck Ravine is located on the southern part of the subject property where surface and storm water in the area flows into Shenck Ravine. Surface water and sediment sample collected previously in the ravine and its outfall had PNA concentrations above IEPA TACO Tier 1 residential soil remediation objectives. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Previous surface soil sampling conducted at Army IR Site #17 through 20 (Army IR Site #17 – Building 384 – Former Ammunition Storage Building, Army IR Site #18 – Building 389 – Former Ammunition Storage Building, Army IR Site #19 – Building 390 – Former Ammunition Storage Building, Army IR Site #20 – Building 388 – Former CAC Firing Range) identified PNAs in soils at concentrations above the IEPA TACO Tier 1 soil remediation objectives. These sites are considered a recognized environmental condition to the subject property (Section 5.4).
- Previous soil and groundwater sampling was conducted at Army IR Site #23 – Sewage Treatment Plant Drying Beds which identified one PNA at concentrations which exceeded its TACO Tier 1 residential soil remediation objective in surface soil samples, and gross Beta radiation at a level above its background level. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #24 is a Former Incinerator is adjacent to and within the setback zone of Landfill #7. Surficial soil samples collected in this area had concentrations of one PNA which exceeded the IEPA TACO Tier 1 residential soil remediation objective. Dioxin was also detected in a soil sample, but no TACO soil remediation objective is listed for dioxin. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #27 is an Acid Pit near Building 378. Elevated lead concentrations exceeding the TACO Tier 1 residential soil remediation objective were reported in soil samples at five feet below ground surface and PNA concentrations exceeding TACO Tier 1 residential soil remediation objectives were reported in soil samples at up to 28 feet below ground surface. The site is within Landfill #5 which is being remediated by Kemron. This site is considered a recognized environmental condition to the subject property (Section 5.4).

- Army IR Site #35 - Building 361 Yard Area is a Former Photo Shop where potential sources of contamination include leaks from the sewer system of chemicals used in photo processing activities. PNA concentrations exceeding TACO Tier 1 residential soil remediation objectives were reported in subsurface soils at up to five feet below ground surface. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #36 is the Building 368 Yard Area also known as the Former Auto Mechanics Shop where elevated PNA and lead concentrations were reported in surface soil samples. Chloride concentrations in groundwater exceeded TACO Tier 1 objectives. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- A subsurface assessment was completed at the Army IR Site #37 at Building 377 Yard Area, the Former Pesticides Storage area. PNA concentrations in surface and subsurface soil samples exceeded TACO Tier 1 residential objectives. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Previous studies and inspections have identified the presence of lead concentrations in soil at concentrations above TACO Tier 1 residential objectives, lead-based paint in housing buildings, and the presence of both exterior and interior lead-based paint in administrative buildings located on the subject property. Elevated lead concentrations, above IEPA TACO Tier 1 residential objectives, were reported in soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664. These locations are considered a recognized environmental condition to the subject property (Section 5.4).
- Building 368 – A manhole which may have been used as a grease trap to contain petroleum products washed from the vehicles during the car washing process is present. This is a potential recognized environmental condition to the subject property (Section 6.14)

The following items, while not considered to be a recognized environmental condition as defined by the ASTM E 1527-00, may pose a financial or other impact to the subject site:

- Ten wetland areas have been located on the Main Navy property at Fort Sheridan. The wetlands include a complex of four swales along the bluff top at the southern end of the site, two areas of bluff-side seeps, and four riparian wetlands along Bartlett, Van Horne, and Shenck ravines. All of these wetlands are adjacent to Lake Michigan and under the jurisdiction of the US Army Corps of Engineers (Section 8.6).
- There are 16 historic properties located at the subject property, with 15 of these properties being duplex houses located along Westover Road. These 15 properties include Building 339, Buildings 341 through 353, and Building 355. The sixteenth property is Building 142, a former barracks that has been converted to office space. In 1997, the Navy started coordination with the State Historic Preservation Office (SHPO) concerning the potential disposal of these properties. On November 19, 1999, the SHPO indicated that "no adverse effect" would occur as long as the Navy included a protective "covenant" as part of any disposal agreement (Sections 5.4 and 8.8).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. Previous surveys have identified asbestos containing materials in buildings at the site. MACTEC is currently completing a comprehensive asbestos survey. Results to-date indicates that asbestos-containing

materials are present in the housing and commercial buildings at the site. Locations of confirmed ACM include walls, wallboard, ceilings, ceiling tiles, pipe wrap, floor tiles and mastic (Section 8.3).

- A lead-based paint risk assessment prepared in March of 2005 and previous studies identified the presence of lead-based paint in housing buildings, and the presence of both exterior and interior lead-based paint in administrative buildings located on the subject property. During the March 2005 risk assessment, limited paint sampling occurred solely in deteriorated areas, and other lead based paint most likely exists in these housing units. Elevated lead concentrations, above TACO Tier 1 residential objectives, were reported in soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664 (Sections 5.4 and 8.3).

1.0 INTRODUCTION

1.1 Purpose

MACTEC Engineering and Consulting, Inc. (MACTEC) was contracted by Forest City Washington to perform a Phase I Environmental Site Assessment of the subject site located east of Sheridan Road in Fort Sheridan, Lake County, Illinois. The site location and vicinity maps are presented in Appendix A.

MACTEC performed the site inspections on July 22 and July 27, 2005. The purpose of the Phase I Assessment was to identify areas of environmental concern associated with the subject site.

1.2 Scope of Work

MACTEC conducted the activities as stated in the following scope of work requested by Forest City Washington with reference to ASTM International's Standard Practice E 1527-00, "*Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*" (E1527-00) and Exhibit A – Scope of Work and Description of Services in the Agreement between Forest City and MACTEC dated July 5, 2005. This work was completed to search for areas of environmental concern associated with the subject site.

1.2.1 On-Site Inspection

- a. MACTEC conducted an on-site inspection of the subject site that consisted of personnel interviews and visual observations to identify readily apparent potential sources of environmental liability.
- b. MACTEC searched for information from readily available sources regarding mercury in fluorescent lamps and switches and potential polychlorinated biphenyls (PCB)-containing light ballasts.
- c. MACTEC conducted an on-site inspection to visually identify transformers, capacitors, or other electrical equipment likely to contain polychlorinated biphenyls (PCBs). MACTEC determined if transformers/capacitors were leaking, and attempted to determine their ownership.
- d. MACTEC visually searched for aboveground storage tanks (ASTs), underground storage tanks (USTs), and associated piping.
- e. MACTEC reviewed environmental documentation files, historical information, and records made available to assist in identifying potential environmental liabilities associated with the subject site.

- f. MACTEC collected photographic documentation of significant environmental features of the subject site.

1.2.2 Inspection of Surrounding Land

MACTEC conducted a visual inspection of surrounding land to identify observable potential environmental threats due to adjacent land use. MACTEC conducted the inspection from the subject site and did not enter other private properties.

1.2.3 Site History

- a. MACTEC interviewed knowledgeable people, including current and previous owners/operators, where feasible, to determine past and present uses of the subject site.
- b. MACTEC reviewed historical aerial photographs from at least three different time periods.
- c. MACTEC searched for Sanborn Fire Insurance maps to assist in determining the past uses of the subject site.
- d. MACTEC reviewed the United States Department of Interior, 7.5 minute series, Topographic Map for the appropriate quadrangle to assist in determining past uses of the subject site.

1.2.4 Regulatory Review

- a. MACTEC contracted Environmental Data Resources, Inc. (EDR) to complete a review of the following government regulatory databases for the specified search distances. Due to the size of the subject site, MACTEC requested that the search radii be extended 1.0-miles beyond the required distances listed below for each of the databases searched. Since the search radii presented in the EDR report extend from approximately the center of the subject site, some of the listed facilities are not accurately described within the EDR report.

Registered Underground Storage Tanks (USTs)	1/4 mile
Leaking Underground Storage Tanks (LUSTs)	1/2 mile
National Priority List (NPL)	1 mile
State Hazardous Waste Sites (SHWS)	1 mile
Category List (CAT) (State Equivalent NPL)	1 mile
Site Remediation Program Database (SRP)	1/2 mile
Comprehensive Environmental Response	
Compensation Liability Information System (CERCLIS)	1/2 mile
CERCLIS-No Further Remedial Action Planned (NFRAP)	1/4 mile
Solid Waste Facilities/Landfill Sites (SWF/LF)	1/2 mile
Resource Conservation and Recovery Act (RCRA)	
- Generators	1/2 mile
- Treatment, Storage and Disposal (TSDs) Facilities	1/2 mile
- Corrective Action Report (CORRACTS)	1 mile

Emergency Response Notification System (ERNS)

subject site

A description of each database is provided in Section 3.0 of this report.

- b. MACTEC contacted state and local agencies through formal freedom of information act (FOIA) letters and by telephone to search for information related to environmental files of the subject site.
- c. MACTEC contacted the SHPO, the Illinois Department of Natural Resources, and the United States Department of Agriculture Fish and Wildlife Service for information related to landmark/historic designations and threatened/endangered species at the subject site.

1.2.5 Non-ASTM Additional Issues

MACTEC attempted to obtain and review readily available information regarding each of the following non-ASTM additional issues:

- a. Radon testing;
- b. Contaminants in drinking water;
- c. Preliminary lead-based paint and asbestos assessments and provide summary information in the final report;
- d. Possible unexploded ordinance (UXO) on the subject property;
- e. Pesticide use;
- f. Wetlands;
- g. Cultural and archeological resources;
- h. Historical resources;
- i. Endangered species;
- j. Existing storm water management plans;
- k. Existing indoor air quality information including but not limited to mold;
- l. Spill Prevention Control and Countermeasure (SPCC) Plans;
- m. Other environmental permits (such as National Pollution Discharge Elimination System [NPDES]); and
- n. Development restrictions due to coastal zones.

1.2.6 Sample Collection

No samples of water, air, or soil were collected or analyzed as part of this Assessment.

1.2.7 Data Evaluation and Report

MACTEC evaluated and summarized background information obtained during the subject site inspection, historical review, and regulatory review. MACTEC prepared this report to discuss significant information and provide conclusions.

1.3 Special Terms and Conditions

Unless otherwise stated, the material presented in this report is based on information provided from observations made during the on-site inspections on July 22 and July 27, 2005.

This report has been prepared by MACTEC for the use of Forest City Washington, as it pertains to the Navy property located immediately east of Sheridan Road at Fort Sheridan in Lake County, Illinois. Our professional services have been performed using that degree of care and skill ordinarily exercised under similar circumstances by other geologists and engineers practicing in this field. No other warranty, express or implied, is made as to the professional advice in this report.

MACTEC can offer no assurances and assumes no responsibility for site conditions or activities outside the scope of the inquiry requested by Forest City Washington as outlined in this document. It should be understood by Forest City Washington that MACTEC has relied on the accuracy of documents, oral information, and other materials and information provided by Forest City Washington and other associated parties. It is recognized that regulatory requirements may change, including the revision of accepted action levels, which could necessitate a review of the discussion, findings, or conclusions of this report. Any subsequent modification, revision or verification of this report must be provided in writing by MACTEC.

1.4 Limitations and Exceptions

Since the use of the subject site had not changed over long periods of time, research of the history during those periods was conducted by reviewing materials available at greater than the ASTM specified five year intervals.

2.0 PROPERTY DESCRIPTION

2.1 Property Location

The subject site is located at Fort Sheridan in Lake County, Illinois. More specifically, the subject site is the portion of the site under control of the Navy at Fort Sheridan which is located east of Sheridan Road. Fort Sheridan is bound on the north by the City of Lake Forest, the west by the City of Highwood, the south by the City of Highland Park and the east by Lake Michigan (Appendix A, Figure 1 and Figure 2).

The Main Navy Property is bound on the north by Bartlett Ravine, the west by Army Buildings 133, 379, 147, 460, 432, 433, 448, 455 and 649, the south by Walker Avenue and the east by Lake Michigan.

The Westover Property is bound on the north by Army Building 200, the west by Mc Kinley Road, the south by Army Building 99, the east by Army Buildings 33, 91, 90, 59, 7, 100, and 85.

2.2 Property and Vicinity General Characteristics

The subject site consists of approximately 206 acres of land in two non-contiguous parcels (designated as the Main Navy Property and the Westover Property) and is used for residential housing by government employees. A total of 92 housing buildings, which include the 15 duplexes located along Westover Road, Buildings 800 through 866 located in the Main Navy Property and 57 administrative and commercial buildings are located on the subject site. The remaining acreage consists of paved parking areas, gravel-surfaced areas around the buildings, grassy areas, vehicle storage lots and closed landfills.

Fort Sheridan was selected for closure in 1988 and officially ceased operations as a U.S. Army installation on May 28, 1993. Of the 714 acres at the base, the U.S. Army has retained two parcels totaling 114 acres which continue to serve Army Reserve missions. The Navy purchased 206 acres from the Army for use as military housing and office functions; 415 acres remained as surplus property for disposal by the Army. Of the 415 acres of surplus property which were disposed by the Army, 230 acres comprise a National Historic Landmark District of residential homes and the remainder is open space (EA, 2005).

The Army initiated Installation Restoration Program (IR) activities at Fort Sheridan in 1990 with the objective to identify and cleanup areas or sites where possible releases of hazardous substances or petroleum products may have occurred as a result of past Department of Defense activities. Twenty-six of the Army IRP sites at Fort Sheridan are located or co-located on the Navy housing property. One Army IR site is located adjacent to the Navy housing property.

The subject property is situated in a largely residential and commercial area. Adjacent properties to the Main Navy Property include Lake Michigan to the east, northeast and southeast, a residential area to the north, U.S. Army Reserve facilities to the west and residential properties to the south across Walker Avenue. Adjacent properties for the Westover Housing Area include residential areas to the north and south, U.S. Army Reserve facilities to the east and commercial properties to the west across Sheridan Road.

2.3 Current Use of Property

The majority of the housing is occupied. All of the administrative and commercial buildings are abandoned with the exception of Building 142 (administrative offices), Building 141 (generator building), Buildings 300, 301 and 681 (which are lift stations), and Buildings 212 and 100 (used by Kemron, the environmental consultant for the Army). A table summarizing the general locations, previous and current use of the administrative/commercial buildings is included as Appendix C.

A total of 26 Army Installation Restoration Program (IR) sites are located at the subject property and one Army IR site is located adjacent to the subject property.

2.4 Property Improvements

A total of 92 housing units and 57 administrative and commercial buildings were located on the subject site. Paved access roads and paved parking areas are located outside the housing buildings and administrative buildings.

2.5 Current Uses of Adjoining Properties

The subject property is located in a residential and commercial area of Highwood and Highland Park, Illinois. MACTEC conducted a visual inspection of surrounding land to identify observable potential environmental threats due to adjacent land use (refer to the Site Plan in Appendix A). MACTEC conducted the inspection from the subject property and did not enter other private properties. MACTEC observed the following surrounding properties:

Parcel 1: Main Navy Property

Direction	Distance from subject property	Land Use	Address	Potentially Up-gradient, Cross-gradient or Down-gradient	Identified on Regulatory Databases
North	Adjacent	Residential Area (US Army).	North of Bartlett Ravine Road	Cross-gradient	Yes (Building 119 – CERCLIS, RCRA-SQG, FINDS, CORRACTS)
South	Across Walker Avenue	Residential Area – City of Highland Park.	South of Walker Avenue	Cross-gradient	No
East	Adjacent	Lake Michigan	Lake	Down-gradient	No
West	Adjacent	Residential Area – U.S. Army	Building 70	Up-gradient	Yes (Building 70 – Army Site, former storage of pesticides and herbicides)

Parcel II: Westover Housing Area

Direction	Distance from subject property	Land Use	Address	Potentially Up-gradient, Cross-gradient or Down-gradient	Identified on Regulatory Databases
North	Adjacent	Residential Area	North of Building 209 and Westover Road Playground	Cross-gradient	No
South	Adjacent	Residential Area and City of Highwood commercial properties	South of Building 355	Cross-gradient	No
East	Adjacent	Residential Area	East of Building 209	Down-gradient	Yes (Army Building 180 – UST, LUST)
West	Adjacent	City of Highwood Commercial Properties	West of Westover Road	Up-gradient	No

The EDR report indicates that U.S. Army Building #119 located to the southwest of Bartlett Ravine, adjacent to the subject site is listed on the CERCLIS, CORRACTS, RCRA-SQG and FINDS list. Based on the location of the building with regard to the sites that are listed as associated with this building, it is believed that these listings are due to the use of the building as a central address. For

instance, the EDR report indicates that activities regarding Landfills #6 and #7 are associated with this building. Landfills #6 and #7 are on the other side of the site.

Building 70, located adjacent west of the Main Navy Property, is an Army IRP site. Building 70 was historically used for storage of pesticides and herbicides. Surface and subsurface soil adjacent to Building 70 was reportedly contaminated with arsenic. According to the December 2002 Environmental Baseline Survey Update, the site was undergoing investigation and remedial actions by the Army. MACTEC has reviewed a Removal Action Completion Report, dated August 12, 2005, prepared by Kemron. This report indicates that the area was remediated by soil excavation and removal. Confirmation samples were obtained and all confirmation sampling results were below TACO Tier 1 residential objectives.

Army Building 180, located adjacent to the northeast of the Navy Westover Property, was listed as having 61 USTs containing heating oil, diesel fuel, gasoline or used oil. These USTs were reported to be closed and or removed. No information was provided as whether these tanks were actually located at Building 180 or whether Building 180 was used as the address for registration of these USTs. Building 180 was also identified on the LUST incident report on the orphan list. A LUST incident was reported to the IEPA in 2001 and the incident #20010520 remains open. Due to the lack of information regarding the locations of the closed USTs and the open status of this LUST incident, and its proximity to the subject property, MACTEC submitted a FOIA request to the IEPA requesting information on the LUST incident. Information received did not clarify the status of the USTs reported at this building. This site is located hydraulically downgradient of the subject property and is expected to pose minimal environmental risk to the property.

3.0 ENVIRONMENTAL RECORD SOURCES

The purpose of the record review is to obtain and review records that will help identify recognized environmental conditions in connection with the subject site.

MACTEC reviewed excerpts of federal, state, and local environmental regulatory agency lists for those properties within the search ranges as noted in the excerpts prepared by Environmental Data Resources, Inc. (EDR). EDR revises their lists periodically when they receive updates from the appropriate agencies. The date of the latest revision is shown on their report, which is appended to this report in Appendix A as *The EDR-Radius Map with GeoCheck®*. The EDR report also summarizes the origin and purpose of each list. Due to the size of the subject site, MACTEC requested that the search radii be extended 1.0-mile beyond the referenced required distances for each of the databases searched. Since the search radii presented in the EDR report extend from approximately the center of the subject site, some of the listed facilities are not accurately described within the EDR report. The summary of the EDR report is attached as Appendix D. The complete EDR report is available upon request.

Please note that regulatory listings are limited and include only those sites that are known to the regulatory agencies at the time of publication to be contaminated or otherwise regulated under environmental laws or that are in the process of evaluation for potential contamination.

It should be noted that evaluations in this section include a consideration of the anticipated groundwater flow direction discussed in Section 4.2 of this report.

3.1 Standard Environmental Record Sources

ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL PRIORITIES LIST (NPL), dated 04/28/05

The Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) established the National Priorities List (NPL) of federal "Superfund" sites. This list identifies Superfund sites that have been designated as national priority clean-up sites and targeted for immediate action due to their high assigned ranking, in terms of potential public health effects, by the EPA.

- The subject site does not appear on the NPL.
- There are no NPL-listed facilities within a 1-mile radius of the subject site.

EPA COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY INFORMATION SYSTEM (CERCLIS), dated 2/15/05

The CERCLIS lists and identifies suspected contamination sites throughout the nation; CERCLIS contains information on sites identified by the U.S. EPA as known or suspect abandoned, inactive, or uncontrolled hazardous waste sites which may require cleanup.

- The subject site does not appear on the CERCLIS list.
- There is one CERCLIS-listed facility located adjacent to the subject property. U.S. Army Building #119 located to the southwest of Bartlett Ravine, adjacent to the subject site is listed on the CERCLIS, CORRACTS, RCRA-SQG and FINDS list. Based on the location of the building with regard to the sites that are listed as associated with this building, it is believed that these listings are due to the use of the building as a central address. For instance, the EDR report indicates that activities regarding Landfills #6 and #7 are associated with this building. Landfills #6 and #7 are on the other side of the site. MACTEC submitted a Freedom of Information (FOIA) request to the USEPA regarding environmental conditions at this location. The response received did not clarify the location status.

EPA CERCLIS-NFRAP, dated 3/22/05

As of February 1995, the CERCLIS No Further Remedial Action Planned (NFRAP) list identifies sites that have been removed from CERCLIS. EPA has removed approximately 25,000 NFRAP sites to lift the unintended barriers to the redevelopment of these properties and has archived them as historical records so EPA does not needlessly repeat the investigations in the future. This policy change is part of the EPA's Brownfields Redevelopment Program to aid cities, states, private investors, and affected citizens to

promote economic redevelopment of unproductive urban sites.

- The subject site does not appear on the CERCLIS-NFRAP list.
- There are no CERCLIS-NFRAP-listed facilities within a 1-mile radius of the subject site.

RESOURCE CONSERVATION AND RECOVERY INFORMATION SYSTEM (RCRIS), dated 05/20/05

RCRIS NOTIFIERS LIST is an EPA database of facilities that generate and/or transport hazardous waste. This list also serves to track the status of hazardous waste treatment, storage, and/or disposal (TSD) facilities regulated under RCRA.

- The subject site was identified on the RCRIS list as a Large Quantity Generator (LQG). RCRIS-LQG facilities generate greater than 1,000 kilograms (2,200 pounds) of hazardous waste material per month. No violations were reported regarding its LQG status.
- There were two LQG identified within the 1/4 mile radius of the subject property. The sites are listed as follows: Skokie Valley Laundry and Dry Cleaners at 514 Sheridan Road is located approximately 1/8th mile west of the subject site. No violations were listed for the Skokie Valley facility. Fabbri Masonary Inc., at 331 Burchell Avenue, is located approximately 1/4 mile southwest of the subject site. No violations were listed for Fabbri Masonary Inc.
- There are 13 RCRIS Small Quantity Generators (SQG) reported within a 1/4-mile radius of the subject site. RCRIS-SQG facilities generate between 100 kilograms and 1,000 kilograms (200 pounds and 2,200 pounds) of hazardous waste material per month; however, this listing does not imply that an environmental problem exists. Building #119 located to the southwest of Bartlett Ravine, adjacent to the subject site is listed on the CERCLIS, CORRACTS, RCRA-SQG and FINDS list. Based on the location of the building with regard to the sites that are listed as associated with this building, it is believed that these listings are due to the use of the building as a central address. MACTEC submitted a Freedom of Information (FOIA) request to the USEPA regarding environmental conditions at Building #119 and the response did not clarify the location status. The remaining facilities are not expected to pose an environmental risk to the subject property based on the Small Quantity Generator (SQG) regulatory status and/or their distance from the subject property.
- There are no facilities reported on the RCRIS TSD list within a 1-mile radius of the subject site.

CORRECTIVE ACTION REPORT (CORRACTS), dated 03/29/05

The CORRACTS list identifies hazardous waste handlers with RCRA corrective action activity.

- The subject site was not identified on the CORRACTS list.
- There is one CORRACTS-listed facility reported within a 1-mile radius of the subject site. Building #119 located to the southwest of Bartlett Ravine, adjacent to the subject site is listed

on the CERCLIS, CORRACTS, RCRA-SQG and FINDS list. Based on the location of the building with regard to the sites that are listed as associated with this building, it is believed that these listings are due to the use of the building as a central address. MACTEC submitted a Freedom of Information (FOIA) request to the USEPA regarding environmental conditions at Building #119 and the response did not clarify the location status.

EPA EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS), dated 12/31/04

The ERNS list is a national database used to collect information on reported releases of oil and hazardous substances.

- The subject site does not appear on the ERNS list. ERNS listed spills are typically small. Significant spills appear on other regulatory lists.

STATE LANDFILL LIST (SWF/LF), dated 11/01/04

Lists of active and inactive landfills, artificial fills, and disposal sites are maintained by the IEPA. The landfill listing does not include unpermitted landfills or dumps.

- The site does not appear on the landfill list. It should be noted that several closed landfills are situated on or nearby the subject property. These landfills were not identified in the EDR report. Refer to the Site Remediation Program section for information.
- There is one property listed on the landfill list within a 1-mile radius of the subject site. Highland Park Municipal Landfill is located approximately one to two miles southwest of the subject site. No other information is provided in the EDR report. Due to its distance from the subject site, this facility is not considered to present an environmental risk to the subject property.

LEAKING UNDERGROUND STORAGE TANK (LUST) LIST, dated 05/20/05

The Leaking Underground Storage Tank list is a listing of UST systems within the State of Illinois, which have reported releases of UST contents. This list is maintained by the Illinois EPA.

- The subject property, listed under Building 141, appears on the LUST list. Building 141 is a generator building. According to the 45 Day Report prepared by Department of Army, three 6,000-gallon No. 2 fuel oil USTs were removed from the building on January 7, 1997. A total of 735 cubic yards of contaminated soil were excavated and removed in May 1997. Eighteen closure samples were collected for benzene, toluene, ethylbenzene and xylenes (BTEX) and polynuclear aromatics (PNAs) and a request for "No Further Remediation" (NFR) was reportedly submitted to the IEPA on May 5, 1999. The EBS for Fort Sheridan (2002) indicated that closure soil sample analytical results were below IEPA TACO Tier I residential objectives.
- The EDR report did not include information on USTs that were removed from nine other on-site buildings: Buildings 142, 162, 208, 209, 368, 369, 377, 384, and 440. Information on these UST removals was obtained from document review. See Section 5.5 for information on these UST removals and their closure status.

- There are 35 facilities reported on the LUST list within a 1/2-mile radius of the subject site. None of the listings are located adjacent to the subject property. However, an Army facility, Building 55 located at 15 Carriage Lane, approximately 500 feet northwest of the Main Navy Property and 500 feet southeast of the Westover Property, has two reported LUST incidents. Both incidents received an NFR letter in March 2001. Another Army facility, Building 140, located at 25 Ronan Road, approximately 500 feet east of the Westover Navy Property and 1/2 mile northwest of the Main Navy Property is listed on the UST and LUST list. According to the EDR report, one 2,500-gallon heating oil UST was registered at the facility and a release from the UST was reported in 2002. Due to its downgradient location to the Westover Navy Property and its distance from the Main Navy Property, this facility does not appear to pose a significant environmental concern to the subject property. The remaining LUST facilities are not considered potential environmental concerns to the subject property based on their distance from and down to cross-gradient location to the subject property.

REGISTERED UNDERGROUND STORAGE TANK (UST) LIST, dated 06/06/05

The Registered Storage Tank List is a listing of underground storage tank systems, which are registered with the Illinois Underground Storage Tank Database.

- The subject site does not appear on the UST list. However, the EDR report did not include information on USTs known to have been removed from ten on-site buildings: Buildings 141, 142, 162, 208, 209, 368, 369, 377, 384, and 440. Information on these UST removals was obtained from document review. See Section 5.5 for information on these UST removals and their closure status.
- There are 28 facilities identified on the registered UST list within 1/4-mile of the subject site. Army Building 180, located adjacent to the northeast of the Navy Westover Property was identified with 61 USTs containing heating oil, diesel fuel, gasoline or used oil. These USTs were reported to be closed and or removed. No information was provided as whether these tanks were actually located at Building 180 or whether Building 180 was used as the address for registration of these USTs. Building 180 was also identified on the LUST facilities listing on the orphan list. A LUST incident was reported to the IEPA in 2001 and the incident #20010520 remains open. Due to the lack of information regarding the locations of the closed USTs and the open status of the LUST incident and its proximity to the subject property, this facility may pose a potential environmental concern to the subject site.

The remaining UST sites are not considered to pose an environmental risk to the subject property based on their distances, down to cross-gradient location and non-LUST status.

STATE HAZARDOUS WASTE SITE (SHWS) INVENTORY LIST, dated 03/30/05.

The State HWS inventory is a list of sites other than LUST sites within the Releases database. The State HWS list is maintained by the Illinois EPA.

- The subject site does not appear on the SHWS list.
- There are no facilities identified on the SHWS list within a 1-mile radius of the subject site.

SITE REMEDIATION PROGRAM DATABASE (SRP), dated 05/12/05.

The State of Illinois Brownfields database lists sites that have entered the Site Remediation Program.

- The subject site was not identified on the SRP database.
- There are five facilities identified on the SRP list within a 1/2-mile radius of the subject site. Fort Sheridan Landfills #3 and #4, located at 351 Ronan Road north and northwest of the Main Navy property, are listed on the SRP database. According to the EDR report, a No Further Remediation (NFR) letter was issued for these landfills in November 1998. The remaining SRP facilities include Zeit Cleaners, located at 306 Waukegan Avenue, approximately 1/4 mile south of the subject property; Mobil Oil Corporation, located at 2580 Skokie Valley Road, approximately 1/2 to one mile west; Mobil Oil Corporation, located at 1333 Half Day Road, approximately 1/2 to one mile west and Lexus of Highland Park, located at 3040 Skokie Valley, approximately 1/2 to one mile west. These facilities are not considered environmental concerns to the subject property based on their distances from the subject property.

Orphan Summary

The Orphan Summary list consists of sites with poor address quality, usually without zip code information. However, if street addresses are available, these site locations are checked against the known vicinity of the subject site to evaluate if they are located within the applicable ASTM search distance. Thirty-one facilities appear on the orphan list.

Of these sites, Building 142 located within the subject property was identified on the FINDS list. Fort Sheridan Resurface Road, located at Bartlett Ravine, was identified on the FINDS list. Army Building 80, located approximately 500 feet west of the Main Navy property, was identified on the orphan list as a UST and a LUST site. Reportedly, one 2,000-gallon heating oil UST was registered at the facility, a release from the UST was reported in 1998 (LUST incident No. 982648), and an NFR letter was received on September 18, 2001.

Building 88, located approximately 800 feet northwest of the Main Navy property, was identified on the orphan list as a LUST site. The LUST incident 981392 remains open. Due to its location across Bartlett Ravine, and distance from the property, this LUST should pose minimal environmental risk to the subject property.

The remaining orphan or unmapped sites did not appear to be within the required search distance of the subject site or are considered down-gradient or cross-gradient of the subject site and therefore are not considered to be potential environmental concerns to the subject site. MACTEC did not identify other sites during our area reconnaissance that are expected to appear on one of the regulatory lists.

3.2 Freedom of Information Act Requests

MACTEC contacted applicable government agencies requesting available information regarding the subject site. The status of those requests is summarized in the following table:

Agency	Contact Person	Date Contacted	Information Provided
Illinois Environmental Protection Agency (IEPA), Bureau of Land Pollution Control	Jan Ogden FOIA Officer	05/24/05	Two (2) disks were received and information indicating that over 75 inches plus microfiche of additional material was available at IEPA. MACTEC personnel reviewed files at the IEPA on August 19, 2005.
IEPA, Bureau of Air Pollution Control	Betty Ascher Manager, Permit Section	05/24/05	No records found.
IEPA, Bureau of Water Pollution Control	Sharyn Haney FOIA Officer	05/24/05	No records found.
Office of the State Fire Marshal	Denise Carty FOIA Officer	04/07/05	No records found.
IEPA, Bureau of Land Pollution Control	Jan Ogden FOIA Officer	07/29/05 (for Building 141)	Response information incorporated within the context of the report.
IEPA, Bureau of Land Pollution Control	Jan Ogden FOIA Officer	08/03/05 (for Building 80, 88, 119 and 180)	Response information incorporated within the context of the report.
U. S. Environmental Protection Agency Region V	Regional FOIA Officer	07/29/05 (Landfills 3 and 4)	Response pending
State Preservation Services	Anne Haaker, Deputy SHPO	7/21/05	Response pending
Fire Department, Fort Sheridan	Fire Chief David Bionde	08/03/05	No records found

In response to MACTEC's FOIA request, IEPA, Bureau of Land, provided over 200 documents. MACTEC has included the pertinent information within the context of this report. MACTEC is awaiting response from the remainder of the above listed agencies. MACTEC will notify Forest City in writing upon receipt of outstanding responses.

3.3 Threatened and Endangered Species

MACTEC contacted applicable government agencies requesting a database search for threatened and endangered species at the subject site.

Agency	Contact Person	Date Contacted	Information Provided
US Fish and Wildlife Service	Richard Nelson Field Supervisor	07/21/05	Response pending
Illinois Department of Natural Resources (IDNR)	FOIA Coordinator	07/21/05	Response pending

MACTEC is awaiting response from the above listed agencies. MACTEC will notify Forest City in writing upon receipt of outstanding responses.

4.0 PHYSICAL SETTING SOURCES

4.1 Topographic Map

The Highland Park, Illinois Quadrangle, U.S. Geological Survey, 7.5 minute, Topographic Map was reviewed for the subject site. The Highland Park, Illinois map is dated 1993. The map shows the subject site developed with buildings similar to the present day. The subject site is situated at an elevation of approximately 660 feet above mean sea level with three ravines oriented perpendicular to the Lake Michigan shoreline. The ground surface slopes generally from west to east across the Navy property with the exception of three ravines, toward a bluff line that runs along the lakeshore. The ground surface drops abruptly from the bluff line to Lake Michigan with a relief ranging from about 40 to 70 feet. Refer to Figure 1 in Appendix A.

4.2 Geologic, Hydrogeologic, and Hydrologic Conditions

According to the EDR report, which contains information from the U.S. Department of Agriculture's Soil Conservation Services, the surficial soils at the subject site area are classified as URBANLAND, which consists of silty clay loam, silt loam and silty clay. The soil on the steep slopes is best suited for providing wildlife habitat and forestry opportunities. Silt loam is found on level to gently sloping terrain that is somewhat poorly drained. Clayey subsoil limits water movement and maintains a seasonal high water table.

The surficial deposits are typically less than 100 feet thick. Surficial geologic materials in the area surrounding the subject site consist of Wadsworth Till Member of the Wedron Formation. The Wedron Formation consists of till that occurs in sheet like deposits separated by beds of water laid sand, gravel, or silt, and varies in thickness. The Wedron Formation is a member of the Wisconsin Stage of the Pleistocene Series of the Quaternary System. The Wadsworth Till Member consists mostly of gray clayey and silty clayey till with few pebbles and cobbles.

The Wedron Formation in the subject area is underlain by bedrock of the Niagaran series of the Silurian System, which is comprised primarily of dolomite type rock.

Groundwater generally flows in directions sub-parallel to the ground surface slopes and under the influence of gravity toward points of discharge such as creeks, swamps, drainage swales, or pumped

groundwater wells. Based on our review of the topographic map, the interpreted natural groundwater gradient across the subject site is expected to be generally east towards Lake Michigan.

Three ravines run west to east, perpendicular to Lake Michigan. Bartlett Ravine contains a paved road that provides access to the beach; however, this ravine still carries water to Lake Michigan in roadside ditches. A small stream flows through Shenck's Ravine to Lake Michigan and carries water much of the year. Van Horne Ravine is dry most of the year.

Groundwater flow is discussed in this report as being up-gradient, down-gradient or cross-gradient in relation to the subject site. A site that is up-gradient from the subject site has the potential for impacting the site as the groundwater is migrating toward the subject site. A site that is down-gradient has little potential for impacting the subject site since the groundwater is directed away from the subject site. A site that is cross-gradient has limited potential for impacting the subject site since the groundwater is not migrating from the site in the direction of the subject site.

5.0 HISTORICAL SOURCES

Emphasis was placed on identifying on-site and off-site environmental conditions most likely to:

- Adversely affect the future site development and usage.
- Present financial liabilities to site owners and developers.
- Be of concern to the various regulatory agencies, in so far as site conditions are covered by current environmental regulations.

The historical search dates back to 1939, which is the earliest record of reasonably available historical information. Sources for this review included aerial photographs, interviews and a topographic map.

The subject site appears to have been used as a military facility since at least 1939. The buildings located on the Westover Property were developed in the late 1930's. Buildings located west of Patten Road in the Main Navy Property including Buildings 419 through 431, 440 through 454, 493 through 485 and Buildings 642, 652, 657, 660 through 666 were constructed around the 1940s. Buildings 800 to 806 were constructed in 1959 and Buildings 807 to 866 were constructed in 1967. The area surrounding the subject site has been mainly residential from at least 1939 to the present. Commercial development along Sheridan Road started in the 1960s.

According to the December 2004 Environmental Assessment report (EA), Fort Sheridan was selected for closure in 1988 and officially ceased operations as a U.S. Army installation on May 28, 1993. Of the 714 acres at the base, the U.S. Army has retained two parcels of 114 acres, which continue to serve Army Reserve missions. The Navy purchased 206 acres from the Army for use as military housing and office functions; 415 acres remained as surplus property for disposal by the Army. Of the 415 acres of surplus property disposed of by the Army, 230 acres comprise a National Historic Landmark District (residential housing) and the remainder is open space.

5.1 Historical Aerial Photographs

MACTEC obtained copies of aerial photographs from the Soil and Water Conservation District of Lake County on May 19, 2005. Nine historical aerial photographs dated 1939, 1954, 1961, 1967, 1974, 1985, 1993, 2000 and 2004 were reviewed to assist in determining past uses of the subject site. Refer to Appendix E for copies of the aerial photographs.

Aerial Photograph 1939

The majority of the subject site appears to be undeveloped. Only the 15 residential buildings in the Westover Property and Building 142 are shown in the 1939 aerial photograph. The area adjacent south of the Bartlett Ravine where the current housing area (Buildings 847 through Building 866) is located appears to be a storage area in 1939. The southern portion of the subject site was mainly undeveloped land.

Aerial Photographs 1954 and 1961

More buildings are shown in the central and southern portion of the Main Navy Property in the 1954 aerial photograph. Some commercial development is visible along Sheridan Road to the southwest of the subject site.

Aerial Photograph 1967

The storage area adjacent to the south of Bartlett Ravine was developed with the current housing area (Buildings 847 through 866). Buildings 807 through 846 located along Johnson Drive and Buildings 800 through 806 along Bullock Drive are first shown in the 1967 aerial photograph. Building 208, the former gas station, located west of the intersection of Boles Loop and Patten Road, is also visible in the 1967 aerial photograph.

Aerial Photographs 1974 through 2004

Aerial photographs 1974 and 1985 are similar to the 1967 aerial photograph. Building 208 is no longer shown in the 1993 aerial photograph. Aerial photographs 2000 and 2004 show the layout of buildings as they appeared during the site reconnaissance.

5.2 Sanborn Fire Insurance Maps

MACTEC contracted EDR to search their files for Sanborn maps for the subject site. In response, EDR indicated they have no Sanborn map coverage of the subject site or adjacent properties.

5.3 State Historic Preservation Office

MACTEC submitted a request to the State Historic Preservation Office (SHPO) to determine whether or not the subject site was listed on the historical preservation database.

Agency	Contact Person	Date Contacted	Information Provided
State Historic Preservation Office	Anne Haacker Deputy SHPO Officer	07/21/05	Response pending (see below)

According to Mr. Gary McDermott, Great Lakes Navy Family Housing Department, the Westover Navy Property has been identified as a historical district and Building 142 located in the Main Navy property will be identified as a historical building by Illinois SHPO. The Fort Sheridan area includes one structure, Building 142, that is eligible for the National Register of Historic Places, according to the *Management Summary for an Intensive Cultural Resources Survey for Public-Private (PPV) Projects at Fort Sheridan and Glenview Housing Areas, Naval Station Great Lakes, Illinois*, prepared by Hardlines Design Company of Columbus, Ohio and dated November 12, 2004. The December 2004 EA reported that the 15 duplexes located on Westover Road, and Building 142, are eligible for listing on the National Register of Historic Places. Response to MACTEC's FOIA request from SHPO is pending. MACTEC will notify Forest City Washington in writing upon receipt of the SHPO reply.

5.4 Environmental Document Review

MACTEC personnel requested previously prepared environmental reports and any environmentally related documents pertaining to the subject site. Various environmental documents dating back to 1989 were provided by the Navy. A summary of the document review is included in Appendix F. Based on our review of available environmental document, environmental concerns including closed ASTs and USTs and leaking USTs located at the subject property, elevated lead concentrations in surficial soils and environmental issues regarding the Army IR sites located at the subject property, were identified and are summarized below:

ASTs:

ASTs, presumably used to store heating oil, are located outside buildings 336, 365, 368, 369, 375, 377, 378, 420, 423, 424, 425, 426, 427, 428, 429, 430, 431, 440, 493, 652, 657, 660, 664 and 666. The majority of these ASTs are located within concrete containment. A pipe draining from the concrete containment to the surrounding ground is present at most AST locations. However, no information was provided on whether spills have occurred or sampling has been performed around these ASTs. During MACTEC's site reconnaissance, staining inside the concrete containment and near the outlet were observed at some AST locations. It is recommended sampling be conducted at each AST location to determine if the subsurface soil has been impacted by historical spills and operations of these ASTs. Refer

to Figure 3 for locations of ASTs at the subject property and Section 6.5 for further discussion of these ASTs.

USTs:

According to information provided for our review, USTs were removed from 10 buildings: Building 141, 142, 162, 208, 209, 368, 369, 377, 384, and 440. Contaminated soil was also excavated and removed. Soil samples were reportedly collected from the tank excavations and compared to the IEPA TACO Tier 1 residential soil remediation objectives. Closure soil sample results at Buildings 141, 208, 369, 377, 384 and 440 indicated that petroleum constituents of concern were below the IEPA TACO Tier 1 residential soil remediation objectives; therefore, no further investigation or remediation appears to be necessary at these locations. No Further Remediation (NFR) letters were obtained from the IEPA for LUSTs at Buildings 142, 209, and 368. Therefore, potentially contaminated soils associated with a LUST may remain at Building 162.

In addition, four 2,000-gallon heating oil USTs were reportedly abandoned in-place at each of the following buildings: Buildings 800 through 806. No documentation of soil or residual product removal was provided. A soil sample collected at Building 801 had a PNA concentration which exceeded the IEPA TACO Tier 1 residential soil remediation objective.

One petroleum LUST site, Building 379, is identified in the 2003 Fort Sheridan EBS as adjacent to the site. Building 379 is located on Army Reserve property south of Bartlett Ravine and west of Building 142 and Patten Road. A 1,000-gallon petroleum UST and contaminated soil were removed from the site in 1997. MACTEC reviewed soil sample results which indicated that no soil concentrations exceeded TACO Tier 1 residential objectives.

Refer to Figure 3 for locations of USTs and Section 6.4 for further discussion of USTs.

Army IR Sites:

A total of 26 Army IR sites are located at the site and one Army IR site (Building 70) is located adjacent to the site. Refer to Figure 3 for locations of IR sites.

Our review of environmental documents indicated the following areas of concern at these IR sites:

- Beach Firing Range - The Beach Firing Range consists of 1.149 acres located on the beach down slope from the bluff area south of Bartlett Ravine. Weapons reportedly were fired at targets placed in

the front of the bluff. Review of the previous reports indicates that sediment sampling was completed and all results were below TACO Tier 1 residential objectives. This site is not considered to present an environmental risk to the subject property.

- Army IR Site #5 - Excavation Area #8 consists of 4.526 acres located on Navy property adjacent to the Lake Michigan shoreline, south of Shenck Ravine, and east of Buildings 804 and 805. It is a disturbed area related to a bluff stabilization project, also believed to represent the former location of a borrow pit area used in the production of bricks. Prior investigation included a passive soil gas survey and geophysical surveys to identify possible areas of fill material in the bluff terraces. Previous soil samples results had PNA concentrations which exceeded TACO Tier 1 residential objectives to 10 feet deep. A Phase III investigation indicated that fill materials with construction debris were present at a depth of eight feet. Information with regard to closure of this site was requested and has not been received.
- Coal Storage Area (CSA) #3 - Coal Storage Area #3 is located predominantly on the west side of Bartlett Ravine and east of Building 43 on about 0.5 acres along Chapman Road. A portion of the site crosses into Bartlett Ravine and thus overlaps onto Navy property. CSA #3 was previously used to stockpile coal for industrial heating purposes. CSA #3 underwent a removal action to mitigate risks caused by coal-related SVOCs. The removal action occurred immediately outside the Navy property. Elevated PNA concentrations were reported in soil samples collected in test pits collected along the northern edge of Bartlett Ravine. Kemron, the consultant for the Army, has verbally indicated that CSA has been remediated and closure samples were collected. MACTEC has been unable to obtain any documentation for review.
- Army IR Site #22 - Coal Storage Area #4 consists of 1.826 acres located on Navy property immediately south of Bartlett Ravine and west of Patten Road. CSA #4 was used for open-air storage of coal for industrial heating purposes. Previous reports indicate that surface and shallow subsurface soil were contaminated with elevated SVOCs. MACTEC has reviewed a Removal Action Completion Report, dated August 12, 2005, prepared by Kemron. This report indicates that the area was remediated by soil excavation and removal. Confirmation samples were obtained and all confirmation sampling results were below TACO Tier 1 residential objectives.
- Army IR Site #2 - Landfill #5 is co-located on Navy and Army Reserve property, in a north-south trending tributary of Bartlett Ravine. The portion of the landfill on Navy property represents 4.286

acres and includes the paved areas west of Buildings 375, 376, and 378, grassy areas west and north of Building 162, and portions of each of these buildings. Baseline risk assessment indicated soil and waste within the landfill were contaminated with lead and SVOCs. Elevated metal concentrations were reported in the groundwater samples collected within the landfill. Reportedly, the site has been capped and closed. A 100-foot setback around this landfill has reportedly been proposed and accepted by the IEPA. MACTEC has been unable to obtain closure documentation for this site.

- Army IR Site #3 - Landfill #6 is co-located on Navy and Army Reserve Property and was created by filling in the western portion of former Wells Ravine west of Patten Road. Wells Ravine is a natural ravine that extends from Lake Michigan west towards H Street on Fort Sheridan. The portion of the landfill on Navy property represents 4.163 acres and extends west from Patten Road, within the area between 9th and 10th Streets, to the Navy Army Reserve property boundary. The EBS reported that previous soil and groundwater sampling did not identify significant chemicals of potential concern in surface or subsurface soil or waste. Landfill #6 has undergone an interim remedial action under the Army IRP to re-route the storm drain that extends along the former Wells Ravine beneath the landfill. Landfill cap construction is complete and methane sampling reportedly showed no methane concentrations. A 100-foot setback around this landfill has reportedly been proposed and accepted by the IEPA. MACTEC has been unable to obtain methane sampling or closure documentation for this site.
- Army IR Site #4 - Landfill #7 represents 16.985 acres located on Navy property. Landfill #7 was formed by filling in the eastern portion of former Wells Ravine east of Patten Road between Bullock Drive and Gordon Johnston Road. Previous investigations included geophysical survey, soil gas surveys and trenching to identify landfill boundaries, and soil and groundwater sampling. Baseline risk assessment indicates lead contamination in subsurface soil and waste. Groundwater was not determined to represent an exposure pathway. Landfill #7 has undergone interim remedial actions under the Army IR program to re-route the storm drain that extends along the former Wells Ravine beneath Landfill #7, collect landfill gases, and collect and treat landfill leachate. Landfill cap construction is complete and leachate collection is ongoing. However, reportedly, methane sample results have indicated high concentrations along the landfill boundary and further adjustments to the methane collection system may be necessary. A 100-foot setback in all areas, except those with high methane levels where 150 feet is proposed, has been reportedly proposed and accepted by the IEPA. MACTEC has been unable to obtain methane sample or closure documentation for this site.

- Wells Ravine Tributary North Extension - The Wells Ravine Tributary North Extension represents 1.524 acres located adjacent to the west side of Landfill #7. This site represents a northern tributary of Wells Ravine that extends toward Building 369 (Former Youth Center and adjacent playground). Fill material associated with this tributary was identified during the interim remedial actions implemented at Landfill #7. During the installation of the re-routed storm sewer around Landfill #7, construction equipment unearthed municipal refuse and other waste. Phase II and III sampling was conducted and samples were analyzed for VOCs, SVOCs, metals, pesticides, PCBs, dioxins and explosives. Phase III sample results show PNAs and lead at concentrations above IEPA TACO Tier 1 residential remediation objectives.
- Army IR Site #7-Vehicle & Equipment Storage Area #3 - Historical leaks and spills from military vehicles and equipment are a suspected source of contamination. The site is a 6.7-acre area west of Patten Road and north of Building 142 and contiguous to the north side of former Building 208. Previous soil samples PNA concentrations which exceeded IEPA TACO Tier 1 residential soil remediation objectives in surface and subsurface soil.
- Army IR Site #11-Vehicle & Equipment Storage Area #7 - Historical leaks and spills from military vehicles and equipment are a suspected source of contamination. The site overlies a filled portion of Van Horne Ravine west of Patten Road between 2nd and 3rd Streets. Previous soil sampling results had PNA concentrations above IEPA TACO Tier 1 residential soil remediation objectives in surface and subsurface soil.
- Army IR Site #12-Vehicle & Equipment Storage Area #8 - This area is considered an extension of Landfill #6. MACTEC has reviewed a Removal Action Completion Report, dated August 12, 2005, prepared by Kemron. This report indicates that the area was remediated by soil excavation and removal. Confirmation samples were obtained and all confirmation sampling results were below TACO Tier 1 residential objectives.
- Army IR Site #13-Bartlett Ravine - Storm water from buildings located at the subject site and offsite flows to Bartlett Ravine which is 3,500 feet long and covers an area of approximately 712,735 square feet. Prior investigations consisted of sampling of surface water from the ravine and its outfall, and sediment from the ravine and beach outfall area. PNAs and pesticides were reported above IEPA TACO Tier 1 residential soil remediation objectives in surficial soils and sediment samples collected from the ravine and beach outfall area.

- Army IR Site #14-Boles Loop Drain - Boles Loop Drain is located on Navy property east of Boles Loop family housing along Lake Michigan. The drain is located downgradient of the LUST site at Building 208. Previous sediment samples were collected for VOCs, SVOCs, metals and pesticides analyses. No contaminants of concern exceeded the IEPA TACO Tier 1 residential soil remediation objectives.
- Army IR Site #15-Van Horne Ravine - Van Horne Ravine is located on Navy property between Boles Loop and McKibben Road east of Patten Road. Effluent from Building 361, a former photo shop and Building 368, a former auto shop, and from construction debris in the area, were reported to flow to Van Horne Ravine. Van Horne Ravine is approximately 1,120 feet long and covers an area of approximately 172,000 square feet. PNA concentrations were reported above IEPA TACO Tier 1 residential soil remediation objectives in sediment samples collected from the ravine and its outfall. Bromodichloromethane, chloroform and chlorine were detected in surface water samples.
- Army IR Site #16-Shenck Ravine - Surface and storm water in the area flows into Shenck Ravine. Surface water and sediment samples collected previously in the ravine and its outfall had concentrations above IEPA TACO Tier 1 residential soil remediation objectives.
- Army IR Site #17-Building 384, Army IR Site #18-Building 389, Army IR Site #19-Building 390 (Former Ammunition Storage Buildings); Army IR Site #20-Building 388-Former CAC Firing Range – These four sites are combined in reports. At Army IR Sites #17 through #20, previous surface soil samples had PNA concentrations above the IEPA TACO Tier 1 residential soil remediation objectives.
- Army IR Site #23-Sewage Treatment Plant Drying Beds - Previous soil and groundwater sampling was conducted at this site for laboratory testing for VOCs, SVOCs, metals, pesticides/PCBs, herbicides and explosives. One PNA was detected at concentrations which exceeded the IEPA TACO Tier 1 residential soil remediation objective in surface soil samples, and gross Beta radiation was detected at a level above the background level. This area is adjacent to Landfill #7 and falls mainly within the setback for this landfill.
- Army IR Site #24-Former Incinerator – Surficial soil samples collected in this area had PNA concentrations above the IEPA TACO Tier 1 residential soil remediation objectives. Dioxin was

also detected at a concentration of 1.65 parts per billion. This area lies at the top of the bluff adjacent to the north side of Landfill #7 within the setback for Landfill #7.

- Army IR Site #27-Acid Pit near Building 378 - Lead concentrations above TACO Tier 1 residential soil remediation objectives were reported in soil samples to five feet below ground surface. PNA concentrations above IEPA TACO Tier 1 residential soil remediation objectives were reported in soil samples at up to 28 feet below ground surface. The acid pit lies within Landfill #5.
- Army IR Site #33-Building 142-Administrative Building - Leaks from a transformer containing PCBs were reported. No PCBs were detected in the floor wipe samples collected. Based on the non-detection of PCBs, this site is not considered an environmental concern to the subject property.
- Army IR Site #35-Building 361 Yard Area-Former Photo Shop - Potential sources of contamination include leaks from the sewer system of chemicals used in photo processing activities. PNA concentrations above IEPA TACO Tier 1 residential soil remediation objectives were reported in subsurface soils at up to five feet below ground surface.
- Army IR Site #36-Building 368 Yard Area-Former Auto Mechanics Shop - Potential source of contamination include the chemicals and petroleum products used during vehicle repair activities. An UST was formerly located at this site. PNA and lead concentrations above IEPA TACO Tier 1 residential soil remediation objectives were reported in surface soil samples. Chloride concentrations in groundwater and lead in sediment samples were also reported at concentrations above IEPA TACO Tier 1 residential remediation objectives.
- Army IR Site #37-Building 377 Yard Area-Former Pesticides Storage - One 1,000-gallon fuel oil UST was removed in 1993 from Building 377. Contaminated soil was excavated and removed in 1994. PNAs were detected at concentrations above the TACO Tier 1 residential soil remediation objectives. Additional soil was excavated and no PNAs were detected. Subsurface assessment in the yard area had detected PNAs at concentrations above the TACO Tier 1 residential soil remediation objective in surface and subsurface soil samples collected at nine feet below ground surface.
- Army IR Site #70-Adjacent Army IR site - Building 70, located adjacent to, and west of the Main

Navy property is an Army IR site. Building 70 was used for storage of pesticides and herbicides historically. Surface and subsurface soil adjacent to Building 70 was reportedly contaminated with arsenic. Review of the December 2002 Fort Sheridan EBS indicated that the site was undergoing investigation and remedial actions by the Army. MACTEC has reviewed a Removal Action Completion Report, dated August 12, 2005, prepared by Kemron. This report indicates that the area was remediated by soil excavation and removal. Confirmation samples were obtained and all confirmation sampling results were below TACO Tier 1 residential objectives.

Elevated Lead Concentration in Surface Soils

Previous surveys conducted in the 1990s identified the presence of lead-based paint in housing buildings located on the subject property. The building inspections performed as part of previous environmental baseline study activities by PRI also identified the presence of exterior lead-based paint and possible contaminated soil conditions at administrative buildings including Buildings 358, 361, 420, 430, 657 and 664. MACTEC's review of a recent lead based paint risk assessment and previous surveys revealed that surface soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664 had elevated lead concentrations ranging from 440 to 8,600 milligram per kilogram (mg/kg) exceeding the IEPA TACO Tier 1 residential soil remediation objective of 400 mg/kg.

Historic Buildings

Fort Sheridan includes one structure, Building 142, that is eligible for the National Register of Historic Places, according to the *Management Summary for an Intensive Cultural Resources Survey for Public-Private (PPV) Projects at Fort Sheridan and Glenview Housing Areas, Naval Station Great Lakes, Illinois*, prepared by Hardlines Design Company of Columbus, Ohio and dated November 12, 2004. The December 2004 EA reported that the 15 duplexes located on Westover Road, and Building 142, are eligible for listing on the National Register of Historic Places. This means there are 16 historic properties located at the subject property, with 15 of these properties being duplex houses located along Westover Road. The duplexes include Building 339, Buildings 341 through 353, and Building 355. The sixteenth property is Building 142, a former barracks that has been converted to office space. In 1997, the Navy started coordination with the SHPO concerning the potential disposal of these properties. On November 19, 1999, the SHPO indicated that "no adverse effect" would occur as long as the Navy included a protective "covenant" as part of any disposal agreement.

6.0 SITE RECONNAISSANCE

6.1 Introduction

The site inspection of the approximately 206-acre of land on two non-contiguous parcels of the Navy property was performed on July 22 and 27, 2005, by Ms. Carmen Yung and Mr. Andrew Hastings of MACTEC. Mr. Robert F. Caselli, Housing Manager, Great Lakes Navy Family Housing Department provided information and access (keys) to various buildings.

6.2 Methodology Used and Limiting Conditions

The interior and exterior of the 57 administrative and commercial buildings located on the two parcels were inspected at the time of the site reconnaissance with the exception of the following buildings: Building 142 (Administrative Offices, as historical building), Building 300, 301 and 681 (which are lift stations and locked), Building 336 (XMT Radio Building which was locked and access not provided), and Building 212 and 100 (used by Kemron, an environmental consultant for the Army). The interior and exterior of a representative number of residential housing buildings located on the two parcels were inspected at the time of the site reconnaissance.

6.3 Electrical/Hydraulic Equipment

Pole mounted electrical transformers were observed throughout the subject property. Pad-mounted electrical transformers were observed in the residential housing areas. No PCB labels were observed on the transformers. No leaks or stains were observed on or at the base of the transformers.

A 1992 transformer sampling report indicated that 61 transformers were located on the Navy property. None of the transformers contained PCB-contaminated insulating fluids exceeding the TSCA action limit of 50 parts per million. An inventory of transformers located on Navy property was conducted on October 10, 2000. Since 1992, new transformers were installed on the subject property by the Great Lakes Naval Training Center, Public Works Center (PWC) and others. These newer transformers reportedly contain standard mineral oil and do not contain PCBs.

Based on the age of the buildings located in the subject property, it is possible that mercury switches and PCB-containing light ballasts and/or fluorescent lighting exist at the subject property.

Hydraulic equipment observed at the subject site during the site walkthrough included three hydraulic lifts in Building 368. Trenches which appeared to be associated with former hydraulic lifts were also observed in an area of staining in Building 378.

6.4 Underground Storage Tanks (USTs)

Based on our environmental document review and our regulatory database search, the following USTs had been located on the subject site:

Location of UST	Size and Content of UST	Summary
Building 141	3 Fuel Oil USTs	USTs removed in January 1997. Contaminated soil removed in May 1997. 18 closure soil samples collected. BTEX and PNAs below IEPA TACO Tier 1 residential soil remediation objectives.
Building 142	1 UST	UST and contaminated soil removed. No Further Remediation obtained from the IEPA.
Building 162	1 UST	UST and contaminated soil removed. No closure report available for review.
Building 208	Multiple USTs (gasoline, kerosene and waste oil)	USTs and contaminated soil removed in 1992. Closure soil samples obtained. Corrective Action Completion Report submitted in March 2004. No Further Remediation obtained from the IEPA.
Building 209	1 UST	UST and contaminated soil removed. No Further Remediation obtained from the IEPA.
Building 368	1 UST	UST and contaminated soil removed. No Further Remediation obtained from the IEPA.
Building 369	1 heating oil UST	UST and contaminated soil removed in 1993. Seven closure soil samples collected. BTEX and PNAs in soil samples below IEPA TACO Tier 1 residential soil remediation objectives.
Building 377	1 heating oil UST	UST and contaminated soil

Location of UST	Size and Content of UST	Summary
		removed in 1993. Additional soil removed in 1994. Closure soil samples collected. BTEX and PNAs in soil samples below IEPA TACO Tier 1 residential soil remediation objectives.
Building 384	1 fuel oil UST	UST and contaminated soil removed in 1994. Closure soil samples collected. BTEX and PNAs in soil samples below IEPA TACO Tier 1 residential soil remediation objectives.
Building 440	1 fuel oil UST	UST and contaminated soil removed in 1993. Additional soil removed in 1994. Eight closure soil samples collected. BTEX and PNAs in soil samples below IEPA TACO Tier 1 residential soil remediation objectives.
Building 800 to 806	4 heating oil USTs at each building location	USTs abandoned in-place in 1998. One soil sample at Building 801 had a PNA concentration which exceeded the IEPA TACO Tier 1 residential soil remediation objective.

MACTEC did not observe evidence of any USTs (e.g., fill ports or vent pipes) during our site reconnaissance.

6.5 Aboveground Storage Tanks (ASTs)

MACTEC observed fifty (50) ASTs throughout the subject site during our site reconnaissance. Most of the ASTs are located outside the buildings within a concrete containment with a pipe draining from the containment onto the ground. Staining inside the concrete containment and/or near the pipe outlet was observed at various locations. A few ASTs were observed sitting on the ground or inside the building without secondary containment. A few empty concrete containments were observed outside the buildings. Summarized below are ASTs identified at the subject site during our site reconnaissance:

Location of ASTs	Number and Size	Observations
Building 336	3 ASTs	2 ASTs on concrete pad, 1 AST within a concrete containment, no floor staining

Location of ASTs	Number and Size	Observations
Building 364	2 ASTs	On concrete pad, no floor staining
Building 365	2 ASTs	On concrete pad, no floor staining
Building 368	1 AST	Within a concrete containment, no floor staining
Building 369	1 AST	Within a concrete containment, no floor staining
Building 375	4 ASTs	4 ASTs in two concrete containment. Staining inside one containment and around the pipe observed.
Building 377	1 AST inside the building 1 AST – within concrete containment	No floor staining observed.
Building 378	3 ASTs within concrete containment	No floor staining observed
Building 420	2 ASTs within concrete containment	No floor staining observed
Building 421	No AST, but an empty concrete containment	No floor staining observed
Building 422	No AST, but an empty concrete containment	No floor staining observed
Building 423	2 ASTs within concrete containment	No floor staining observed
Building 424	2 ASTs within concrete containment	No floor staining observed
Building 425	2 ASTs within concrete containment	No floor staining observed
Building 426	2 ASTs within concrete containment	No floor staining observed
Building 427	1 AST within concrete containment	No floor staining observed
Building 428	2 ASTs within concrete containment	No floor staining observed
Building 429	2 ASTs within concrete containment	No floor staining observed
Building 430	2 ASTs within concrete containment	No floor staining observed
Building 431	2 ASTs within concrete containment	No floor staining observed
Building 440	1 AST on ground (asphalt)	No floor staining observed
Building 493	2 ASTs inside the building, sitting on concrete floor	No floor staining observed
Building 642	1 AST within concrete containment	No floor staining observed
Building 652	2 ASTs within concrete containment	No floor staining observed

Location of ASTs	Number and Size	Observations
Building 657	2 ASTs within concrete containment	No floor staining observed
Building 660	1 AST within containment	No floor staining observed
Building 663	No AST, but an empty concrete containment	No floor staining observed
Building 664	2 ASTs within concrete containment	No floor staining observed
Building 666	2 ASTs within concrete containment	No floor staining observed

6.6 Chemical Storage

No chemical storage was observed inside the buildings located at the subject site during our site reconnaissance. One empty 55-gallon drum was observed inside Building 445 and two 5-gallon metal containers were observed inside Building 378. The floors of most of the administrative/commercial buildings were covered with garbage and broken wood pieces and glass. No obvious signs of floor staining due to prior chemical storage activities were observed during our site reconnaissance.

6.7 Spills/Stains

Petroleum-product related staining was observed in the vicinity of one air compressor located inside Building 378. Trenches which appeared to be associated with former hydraulic lifts were also observed in the area of staining in Building 378.

Floor staining around three sets of former hydraulic lifts were also observed inside Building 368, which is a former auto repair facility.

Refer to Section 6.5 above for staining observed inside the concrete containment of the ASTs and/or around the ASTs located on the subject property.

MACTEC did not observe other areas of stained soils or other evidence of spills during our site reconnaissance.

6.8 Soil and Pavement Disturbances

MACTEC observed stockpiles of materials behind Building 100 which are being used for landfill remediation activities. No other soil or pavement disturbances were observed.

6.9 Miscellaneous Debris

Miscellaneous debris, consisting of broken furniture, broken wood pieces, metals and glasses was observed inside many of the administrative/commercial buildings. Metal pipes and broken concrete pieces were observed outside Building 642.

6.10 Wells

Water is supplied to the site by the City of Highland Park which obtains water from Lake Michigan. No water wells were reported or observed on-site. Monitoring wells, placed during investigation activities, are present around Landfill #7.

6.11 Waste Disposal

Waste disposal at the subject site is contracted to Onyx Disposal, an outside contractor, who periodically picks up solid waste from the subject site for offsite disposal.

6.12 Pits, Ponds or Lagoons

Three ravines running perpendicular to the Lake Michigan are located on the subject site. No pits or lagoons are located at the subject site. No standing water was observed at the subject site during the site reconnaissance.

6.13 Wastewater Discharge

MACTEC did not observe evidence of wastewater discharge other than for sanitary purposes. The Navy has indicated that there is a storm water collection system associated with Landfills #6 and #7 that discharges (NPDES equivalent outfall) to Lake Michigan.

6.14 Drains and Sumps

Floor drains were observed inside the furnace room of the residential and administrative/commercial buildings. In addition, floor drains were observed inside the following administrative/commercial buildings in areas other than the furnace room:

- Building 368 – floor drains near the hydraulic lifts and staining observed. One manhole cover (18" to 24" diameter) was observed inside one vacant room. MACTEC attempted unsuccessfully to uncover the manhole. According to the Navy, the vacant room was formerly used as a carwash. The manhole may have been used as a grease trap to contain petroleum products washed from the vehicles during the car washing process.
- Building 377 – Two floor drains in the Entomology section. No staining observed near the drains.

- Building 378 – Floor drains observed near the air compressor and floor staining observed.

6.15 Stressed Vegetation

MACTEC did not observe stressed vegetation during our site walk-through.

6.16 Septic System

No septic system was reported or observed at the subject property. The subject site is connected to the local sanitary sewer system operated by the North Shore Sanitary District.

6.17 Odors

There were no obvious strong, pungent, or noxious odors noted during the site reconnaissance.

6.18 Pools of Liquid

No pools of liquid were observed during the site reconnaissance.

6.19 Railroad Tracks

No railroad tracks are located at the subject site.

7.0 INTERVIEWS

The following individuals associated with the subject property were interviewed regarding the subject property and surrounding area:

- Mr. Robert Caselli, Housing Manager, Great Lakes Navy Family Housing Department, provided information regarding the history and the current operations at the subject property. Mr. Caselli stated that he has worked at the subject property for 28 years.
- Mr. Gary McDermott, Great Lakes Navy Family Housing Department, provided information regarding the USTs, history and the current operations at the subject property.
- Fire Chief David Bionde of the Fort Sheridan Fire Department provided information regarding environmental incidents, spills and tanks at the subject property.
- NAVFAC Midwest Environmental Department interview, August 9, 2005. Personnel provided information on pesticide management and use, drinking water testing and historical information about the subject site.

8.0 ADDITIONAL SERVICES

In conjunction with this Phase I ESA, MACTEC attempted to obtain and review readily available information regarding each of the following non-ASTM additional issues.

8.1 Radon

No radon testing was performed as part of this Phase I ESA. However, information provided by Environmental Data Resources, Inc., indicated that based on previous radon gas testing performed in Lake County, Lake County is classified as Federal EPA Radon Zone 2 which has an indoor average level more than or equal to 2 picoCuries per liter (pCi/L) and less than or equal to 4 pCi/L. The EPA action level is 4 pCi/L. The potential for elevated levels of radon on the subject site appears to be low.

Review of previous environmental reports indicates that a radon survey was completed in 1990. Radon levels were identified above the action limit of 4.0pCi/L in one building, 348A, located in the Westover Road housing area of the Navy property. Reportedly, the building was retested and the results were below the action limit.

8.2 Drinking Water

The Main Navy Property is connected to the City of Highland Park water system and the Westover Property is connected to the City of Highwood water system. Both cities obtain their water from Lake Michigan. There are no known potable water supply wells on the subject site. According to the Navy, no testing at the faucet of the drinking water at the subject property has been performed.

8.3 Preliminary Lead-Based Paint and Asbestos Assessments

Asbestos assessments are currently being performed by MACTEC on buildings located on the subject property. Building inspections performed by PRI in 2000 identified the presence of possible ACM in buildings on Navy property. According to the December 2002 EBS, during interviews with Mr. Tom Frye of the Great Lakes Training Center, Mr. Frye indicated that during demolition activities at the subject property, ACM was found in a variety of places including, but not limited to: walls, wallboard, ceilings, ceiling tiles, pipe wrap, floor tiles and mastic.

The lead content of paint was regulated in 1977. Therefore, buildings that were constructed prior to 1977 are likely to have remaining LBP. Due to the date of construction of many of the housing units (prior to 1977), it is suspected that LBP is present (EBS, March 2000). Previous studies have identified the presence of lead-based paint in housing buildings located on the subject property. The most recent report is a nine

volume lead-based paint (LBP) risk assessment prepared by GLE Associates, Inc. of Tampa, Florida for NAVSTA Great Lakes. The assessment of Navy Family Housing for Lead-Based Paint was initiated by the Department of the Navy. It should be noted that the lead based paint risk assessment consisted mainly of the collection of lead dust (wipe) and soil samples. Paint samples were collected solely from damaged or deteriorated areas. Therefore, additional areas of lead based paint which may require monitoring and abatement in the future may exist. The building inspections performed in 2000 as part of previous environmental baseline study activities also identified the presence of both exterior and interior lead-based paint.

MACTEC's review of environmental documents has indicated that surface soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664 had elevated lead concentrations exceeding the IEPA TACO Tier 1 residential soil remediation objective, ranging from 440 to 8,600 milligram per kilogram.

8.4 Possible Unexploded Ordnance

Review of previous environmental reports indicate that a Statement of Clearance for ordnance was submitted and approved in October 1997. The document outlines the areas of known ordnance activity at Fort Sheridan. Eight areas within Navy property were subjected to a subsurface search of 10% of each land area due to possible presence of ordnance. No UXO or UXO related items were identified during the surveys for the eight areas and the recommendation is made in the Statement of Clearance that future land use of these areas be unrestricted. An additional area designated as the old trench area was not prioritized as one of the areas requiring investigation, but the Army advises land users that trench warfare training was performed in this area during World War I and the possibility exists that explosive contaminants remain in the land. The old trench system area covers the area of Navy property bounded on the north by the Boles Loop housing area and Building 162, and extending southward to McKibben Street and 3rd Street. MACTEC has not been able to obtain a copy of this Statement of Clearance to review this information.

8.5 Pesticide Use

MACTEC has been informed by NAVFAC Midwest Environmental Department personnel that a pesticide management plan has been in place at the subject site. This plan is currently being revised. The Navy contracts with a licensed pesticide service, and usage of pesticides in accordance with applicable regulations should not present an environmental concern for the property.

8.6 Wetlands

According to the December 2004 EA, Graef, Anchloemer & Associates, Inc. (GASA) performed a jurisdictional determination and delineation of the boundaries of "waters of the United States" including wetlands, which occur within the Navy properties of Fort Sheridan (U.S. Navy, Wetland Delineation Report, 2004). The smaller of the two parcels at the Fort Sheridan site covers approximately 15 acres along Westover Road between Sheridan Road and the Town of Fort Sheridan Co. subdivision. The parcel is completely filled with a housing development and playground. No wetlands were identified. The larger of the two parcels covers approximately 191 acres immediately adjacent to Lake Michigan. Ten wetland areas have been located on the larger parcel at Fort Sheridan. The wetlands included a complex of four wet swales along the bluff top at the southern end of the site, two areas of bluff-side seeps, and four riparian wetlands along Bartlett, Van Horne, and Shenck ravines. All of these wetlands are adjacent to Lake Michigan and under the jurisdiction of the US Army Corps of Engineers.

8.7 Cultural and Archeological Resources

Fort Sheridan housing areas do not have any listed historic property in National Register that would be demolished. However, the Westover Road quarters are eligible for nomination to the National Register and are to be transferred as part of this proposed action. They are a series of 15 duplexes at Fort Sheridan, which date back to 1938. A HABS inventory of the buildings was performed by the Corps of Engineers. As stated in the Draft Report – Cultural Resources Survey of Navy Family Housing for PPV (April 2004), no connections with major historical events or persons were uncovered for these houses. The houses are likely associated with expansion and modernization of the U.S. Army during the 1930s. The HABS survey indicated that the houses were eligible for the National Register of Historic Places since they easily could be added to the adjacent Fort Sheridan Historic District via a boundary expansion.

According to "Management Summary for an Intensive Cultural Resources Survey for PPV Project at Fort Sheridan and Glenview Housing Areas, Naval Station Great Lakes, Illinois" dated November 12, 2004, a building and cultural survey was performed on the subject property. The investigation included installation of 48 test units along Westover Road, 97 test units on the WWII Temporary Administrative Building Area, 87 test units near recreational facilities along McKibbin Road, visual inspection and photo documentation of the Patten/Finley Road Intersection, a walking surface survey of the coastline along Lake Michigan, and a shovel test unit at Building 652. The survey and excavated area revealed highly disturbed soil horizons due to base construction and utility work, and no intact historic cultural deposits were ever encountered. The survey concluded that no archaeological sites were documented at the subject property.

8.8 Historical Resources

There are 16 historic properties located at the subject property; with 15 of these properties being duplex houses located along Westover Road. These 15 properties include Building 339, Buildings 341 through 353, and Building 355. The sixteenth property is Building 142, a former barracks that has been converted to office space. In 1997, the Navy started coordination with the SHPO concerning the potential disposal of these properties. On November 19, 1999, the SHPO indicated that "no adverse effect" would occur as long as the Navy included a protective "covenant" as part of any disposal agreement.

8.9 Endangered Species

MACTEC has submitted a FOIA request to the Illinois Department of Natural Resources and US Fish and Wildlife Service requesting information on the presence of endangered and threatened species and Illinois Natural Area Inventory sites for the subject property. No responses from these agencies have been received yet.

According to the December 2004 EA, the U.S. Fish and Wildlife Service (USFWS) lists four species of animals and four species of plants in Lake and Cook counties as threatened or endangered. Lack of suitable habitat for most of these species and urbanization surrounding the subject property greatly reduces the possibility of finding any Federal-listed threatened or endangered species on these locations.

Three species of plants, the Eastern prairie fringed orchid, prairie bush-clover, and Pitcher's thistle, are Federal-listed as threatened in Lake and Cook Counties. None of these species were documented in a recent floral survey of the subject property.

The 1995 floral survey found seven species of plants on the state threatened and endangered species lists within the subject property. Most of these species were found on the lake bluff and panne community along the shore of Lake Michigan.

The USFWS currently lists the Karner blue butterfly as extirpated in Lake County, but also states that the potential for this butterfly to inhabit the county remains. The loss of oak savannahs and pine barrens to urbanization, and suppression of naturally occurring fires in Lake County are the main reason for the loss of the Karner blue butterfly within Lake County. Since the subject property lacks these types of plant communities, the presence of the Karner blue butterfly is unlikely.

No species of reptiles or amphibians within Lake and Cook Counties are Federal-listed as threatened or endangered. None of the herptiles documented on the subject property are Federal or State-listed as threatened or endangered.

No Federal-listed threatened or endangered species of bird are known from Cook or Lake counties.

The Indiana bat is considered to be endangered in all counties of Illinois, and is the only Federal-listed threatened or endangered species of mammal in Lake and Cook counties. The normal hibernation habitat is not found on the subject property.

The most recent faunal survey did not document the presence of any State-listed threatened or endangered mammals on the subject property.

The pallid sturgeon is the only Federal-listed endangered species of fish in Illinois. This fish is an inhabitant of large river systems with silty bottoms and having a diversity of depths and velocities formed by braided channels, sand bars, sand flats, and gravel bars. These conditions do not exist on the subject property.

Seventeen species of fish are State-listed as endangered, and eight as threatened, within Illinois. None of these species was documented on the subject property during the 1995 faunal survey.

8.10 Storm Water Management Plans

According to information provided by the NAVFAC MW Environmental Department in an interview, MACTEC was informed that the Navy does not have Storm Water Management Plans for the subject property. The Navy has an IEPA Industrial Discharge Permit which covers the landfill areas and Building 368.

8.11 Indoor Air Quality

According to information provided by the NAVFAC MW Environmental Department in an interview, indoor air quality testing is performed at buildings on an as-needed basis at the subject property based on resident complaints. MACTEC has requested information on indoor air quality testing performed on the subject property and is currently awaiting response.

8.12 Spill Prevention Control and Countermeasure Plans

The subject property does not have a Spill Prevention Control and Countermeasure Plan.

8.13 Environmental Permits

The subject property was identified on the RCRIS list as a Large Quantity Generator (LQG). RCRIS-LQG facilities generate greater than 1,000 kilograms (2,200 pounds) of hazardous waste material per month. Hazardous wastes were formerly generated and stored in Buildings 368, a former auto shop and 377, a former pesticide storage building.

8.14 Coastal Zones

The Coastal Zone Management Program (CZMP) is authorized by the Coastal Zone Management Act of 1972 and administered at the federal level by the Coastal Programs Division (CPD) within the National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management. The CPD is responsible for advancing national coastal management objectives and maintaining and strengthening state and territorial coastal management capabilities. It supports states through financial assistance, mediation, technical services and information, and participation in priority state, regional, and local forums.

MACTEC reviewed existing information regarding the Coastal Management Program, which is currently being developed by the Illinois Department of Natural Resources (IDNR). As of yet, no coastal zone management program is formally in place for the State of Illinois. Illinois is the last of the 35 eligible coastline states to join the program. (Illinois State Geological Survey Highlights Archive, November 4, 2004). The information reviewed included an April 28, 2005 memorandum from IDNR; general guidelines on Developing a Coastal Management Program (CMP) for Illinois, Developing the Coastal Management Program Boundary, and a questionnaire developed by IDNR. According to the April 28, 2005 memorandum from Mr. Frank Pisani, P.E., IDNR Office of Water Resources, the IDNR is currently in the process of CMP development and is seeking input on general issues and areas of concern regarding the program. The memorandum further states that IDNR does not believe the CMP will specify or require any special setback provisions or require any modifications to local zoning ordinances or existing requirements. Based on the information provided by IDNR, it does not appear that the CMP will impact Forest City's future development plans.

9.0 FINDINGS

Based on information obtained during this assessment, MACTEC identified the following findings:

- The subject property was identified on the regulatory database as a RCRA Large Quantity Generator. No violations were reported regarding its large quantity generator status (Section 3.1).
- Underground storage tanks (USTs) were removed from ten on-site buildings: Building 141, 142, 162, 208, 209, 368, 369, 377, 384, and 440. Contaminated soil was also excavated and removed. Soil samples were reportedly collected from the tank excavations and compared to the IEPA TACO Tier 1 residential soil remediation objectives. Closure soil sample results at buildings 141, 208, 369, 377, 384 and 440 indicated that petroleum constituents of concern were below the IEPA TACO Tier 1 residential soil remediation objectives; therefore, no further investigation or remediation appears to be necessary at these locations. No Further Remediation letters were obtained from the IEPA for LUSTs at buildings 142, 209, and 368 (Sections 5.4 and 6.4).
- Four 2,000-gallon heating oil USTs were reportedly abandoned in-place at each of the following buildings: Buildings 800 through 806. No documentation of soil or residual product removal was provided. One soil sample collected at Building 801 had detected concentrations of a PNA which exceeded the IEPA TACO Tier 1 residential soil remediation objective (Sections 5.4 and 6.4).
- A total of 50 ASTs, presumably used to store heating oil were located on the subject property. Most of the ASTs were observed inside concrete containment. Many of the concrete containment structures had pipes which led to the ground outside, and valves in these pipes were observed to have been left open. Staining inside the containment and/or around the pipe draining from the containment to the surrounding ground was observed at several locations (Sections 5.4 and 6.5).
- Petroleum-product related staining was observed in the vicinity of one air compressor located inside Building 378. Trenches appeared to be associated with former hydraulic lifts were also observed in the area of staining inside Building 378 (Section 6.7).
- Three former hydraulic lifts were observed inside Building 368, a former auto repair shop. Floor staining was observed around the former hydraulic lifts (Sections 6.3 and 6.7).
- Remediation has reportedly been completed at the following IR sites and closure samples were collected: Coal Storage Area (CSA) #3, Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site #12 - Vehicle & Equipment Storage Area #8. However, closure information for only two of these areas (Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site #12 - Vehicle & Equipment Storage Area #8) was obtained (Section 5.4).
- Three landfills are currently present on the subject property: Army IR Site #2 - Landfill #5, Army IR Site #3 - Landfill #6, and Army IR Site #4 - Landfill #7. The landfills are reportedly capped, but are subject to site restrictions and long term monitoring. Information has not been made available to MACTEC with regard to methane sampling at the landfills and closure.
- Beach Firing Range, located on the beach down slope from the bluff area south of Bartlett Ravine where weapons reportedly were fired at targets placed in the front of the bluff, is an Army IR site located on the subject property. Sediment and subsurface samples were collected and results were below TACO Tier 1 residential objectives (Section 5.4).

- Army IR Site #5 - Excavation Area #8 is a disturbed area related to a bluff stabilization project, also believed to represent the former location of a borrow pit area used in the production of bricks. Previous soil sampling results had PNA concentrations which were above TACO Tier 1 residential objectives to 10 feet deep. A Phase III investigation indicated that fill materials with construction debris were present to a depth of eight feet. Information with regard to closure of this site was requested and has not been received (Section 5.4).
- Wells Ravine Tributary North Extension, a northern tributary of Wells Ravine that extends toward Building 369 (Former Youth Center and adjacent playground) is an Army IR site located on the subject property. Fill material associated with this tributary was identified during the interim remedial actions implemented at Landfill #7. During the installation of the re-routed storm sewer around Landfill #7, construction equipment unearthed municipal refuse and other waste. Phase II and III sampling was conducted and samples were analyzed for VOCs, SVOCs, metals, pesticides, PCBs, dioxins and explosives. PNAs and lead were detected above IEPA TACO Tier 1 residential remediation objectives (Section 5.4).
- Army IR Site #7 - Vehicle & Equipment Storage Area #3 is a 6.7-acre area west of Patten Road and north of Building 142 and contiguous to the north side of former Building 208. Previous soil sampling results had PNA concentrations above IEPA TACO Tier 1 residential remediation objectives in surface and subsurface soil (Section 5.4).
- Army IR Site #11 - Vehicle & Equipment Storage Area #7 has historically had leaks and spills from military vehicles and equipment. Previous soil sampling results had PNA concentrations which were above TACO Tier 1 residential remediation objectives in surface and subsurface soil (Section 5.4).
- Prior investigations conducted at Army IR Site 13 - Bartlett Ravine consisted of sampling surface water from the ravine and its outfall, and sediment from the ravine and beach outfall area. PNAs and pesticides were reported at concentrations above IEPA TACO Tier 1 residential remediation objectives in surficial soils and sediment samples collected from the ravine and beach outfall area (Section 5.4).
- Army IR Site #14 - Boles Loop Drain is located downgradient of the LUST site at Building 208. Previous sediment samples were collected for VOCs, SVOCs, metals and pesticides analyses. No concentrations were detected which were above the IEPA TACO Tier 1 residential soil remediation objectives (Section 5.4).
- Army IR Site #15 - Van Horne Ravine is located on Navy property between Boles Loop and McKibben Road east of Patten Road. Effluent from Building 361, a former photo shop and Building 368, a former auto shop, and from construction debris in the area, were reported to flow to Van Horne Ravine. PNA concentrations were reported above TACO Tier 1 residential remediation objectives in sediment samples collected from the Ravine and its outfall. Bromodichloromethane, chloroform and chloride were detected in surface water samples at concentrations above surface water criteria (Section 5.4).
- Army IR Site #16 - Shenck Ravine is located on the southern part of the subject property where surface and storm water in the area flows into Shenck Ravine. Surface water and sediment samples collected previously in the ravine and its outfall had PNA concentrations above IEPA TACO Tier 1 residential soil remediation objectives (Section 5.4).
- Previous surface soil sampling conducted at Army IR Site #17 through #20 (Army IR Site #17 -

Building 384 – Former Ammunition Storage Building, Army IR Site #18 – Building 389 – Former Ammunition Storage Building, Army IR Site #19 – Building 390 – Former Ammunition Storage Building, Army IR Site #20 – Building 388 – Former CAC Firing Range) identified PNAs in soils at concentrations above the IEPA TACO Tier 1 residential soil remediation objectives (Section 5.4).

- Previous soil and groundwater sampling was conducted at Army IR Site #23 – Sewage Treatment Plant Drying Beds which identified one PNA at concentrations which exceeded its TACO Tier 1 residential soil remediation objective in surface soil samples, and gross Beta radiation at a level above its background level was detected (Section 5.4).
- Army IR Site #24 – Former Incinerator is co-located with Landfill #7 where surficial soil samples collected in this area had concentrations of one PNA which exceeded the IEPA TACO Tier 1 residential soil remediation objectives. Dioxin was also detected in a soil sample but no TACO soil remediation objective is listed for dioxin (Section 5.4).
- Army IR Site #27 is an Acid Pit near Building 378. Lead concentrations exceeding the TACO Tier 1 residential soil remediation objective were reported in soil samples to five feet below ground surface and PNA concentrations exceeding TACO Tier 1 residential soil remediation objectives were reported in soil samples at up to 28 feet below ground surface (Section 5.4).
- Army IR Site #35 - Building 361 Yard Area is a Former Photo Shop where potential sources of contamination include leaks from the sewer system of chemicals used in photo processing activities. PNA concentrations exceeding TACO Tier 1 residential soil remediation objectives were reported in subsurface soils at up to five feet below ground surface. The site is within Landfill #5 which is being remediated by Kemron (Section 5.4).
- Army IR Site #36 is Building 368 Yard Area also known as the Former Auto Mechanics Shop where elevated PNA and lead concentrations were reported in surface soil samples. Chloride concentrations in groundwater exceeded TACO Tier 1 residential remediation objectives (Section 5.4).
- A subsurface assessment was completed at the Army IR Site 37 at Building 377 Yard Area, the Former Pesticides Storage. PNA concentrations in surface and subsurface soil samples exceeded TACO Tier 1 residential soil remediation objectives (Section 5.4).
- Building 368 – A manhole which may have been used as a grease trap to contain petroleum products washed from the vehicles during the car washing process is present (Section 6.14).
- The following neighboring offsite facilities were identified on the regulatory database and /or MACTEC's review of environmental documentation:
 - Building 70, located adjacent west of the Main Navy Property is an Army IR site. Building 70 was historically used for storage of pesticides and herbicides. Surface and subsurface soil adjacent to Building 70 was reportedly contaminated with arsenic. The site has undergone investigation and remedial action by the Army. Confirmation sample results indicate that remaining soil concentrations are below TACO Tier 1 residential objectives.
 - Army Building 180, located adjacent to the northeast of the Navy Westover property was listed as having 61 USTs containing heating oil, diesel fuel, gasoline or used oil. These USTs were reported to be closed and/or removed. No information was provided as to

whether these tanks were actually located at Building 180 or whether Building 180 was used as the address for registration of these USTs. Building 180 was also identified on the LUST incident report on the orphan list. A LUST incident was reported to the IEPA in 2001 and the incident number (#20010520) remains open. This site is downgradient of the Westover Road property.

- One petroleum LUST site, Building 379, is identified in the 2003 Fort Sheridan EBS as adjacent to the site. Building 379 is located on Army Reserve property south of Bartlett Ravine and west of Building 142 and Patten Road. A 1,000-gallon petroleum UST and contaminated soil were removed from the site in 1997. MACTEC reviewed soil sample results which indicated that no soil concentrations exceeded TACO Tier 1 residential objectives.
- Ten wetland areas have been located on the Main Navy Property at Fort Sheridan. The wetlands include a complex of four swales along the bluff top at the southern end of the site, two areas of bluff-side seeps, and four riparian wetlands along Bartlett, Van Horne, and Shenck ravines. All of these wetlands are adjacent to Lake Michigan and under the jurisdiction of the US Army Corps of Engineers (Section 8.6).
- There are 16 historic properties located at the subject property, with 15 of these properties being duplex houses located along Westover Road. These 15 properties include Building 339, Buildings 341 through 353, and Building 355. The sixteenth property is Building 142, a former barracks that has been converted to office space. In 1997, the Navy started coordination with the SHPO concerning the potential disposal of these properties. On November 19, 1999, the SHPO indicated that "no adverse effect" would occur as long as the Navy included a protective "covenant" as part of any disposal agreement (Sections 5.4 and 8.8).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. Previous surveys have identified asbestos containing materials in buildings at the site. Results to-date indicates that asbestos-containing materials are present in the housing and commercial buildings at the site. Locations of confirmed ACM include walls, wallboard, ceilings, ceiling tiles, pipe wrap, floor tiles and mastic (Section 8.3).
- A lead-based paint risk assessment completed in March of 2005 and previous studies identified the presence of lead-based paint in housing buildings, and the presence of both exterior and interior lead-based paint in administrative buildings located on the subject property. Elevated lead concentrations, above TACO Tier 1 residential objectives, were reported in soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664 (Sections 5.4 and 8.3).

10.0 OPINIONS

Based on the findings of our assessment, MACTEC provides the following opinions on the observed conditions.

- The subject property was identified on the regulatory database as a RCRA Large Quantity Generator. No violations were reported regarding its large quantity generator status. The status of the site as a large quantity generator does not, of itself, represent an environmental concern. Since no violations are reported, this is not an environmental condition affecting the subject site (Section 3.1).
- Underground storage tanks (USTs) were removed from ten on-site buildings: Building 141, 142, 162, 208, 209, 368, 369, 377, 384, and 440. Contaminated soil was also excavated and removed. Soil samples were reportedly collected from the tank excavations and compared to the IEPA TACO soil remediation objectives. Closure soil sample results at buildings 141, 208, 369, 377, 384 and 440 indicated that petroleum constituents of concern were below the IEPA TACO Tier 1 residential soil remediation objectives; therefore, no further investigation or remediation appears to be necessary at these locations. No Further Remediation (NFR) letters were obtained from the IEPA for LUSTs at buildings 142, 209, and 368. Therefore, potentially contaminated soils associated with a LUST which may remain at building 162 are considered a recognized environmental condition. MACTEC recommends investigation at building 162 to determine if contaminated soils remain (Sections 5.4 and 6.4).
- Four 2,000-gallon heating oil USTs were reportedly abandoned in-place at each of the following buildings: Buildings 800 through 806. No documentation of soil or residual product removal was provided. One soil sample collected at Building 801 reported PNA concentration exceeding the IEPA soil remediation objectives. MACTEC recommends additional soil sampling be performed at these former UST locations to ascertain if the subsurface soil has been impacted (Sections 5.4 and 6.4).
- A total of 50 ASTs, presumably used to store heating oil were located on the subject site. Most of the ASTs were observed inside a concrete containment. Staining inside the containment and/or around the pipe draining from the containment was observed at several locations. It is MACTEC's opinion that the presence of ASTs and surface staining pose a potential environmental risk to the subject property. Subsurface assessment around these ASTs is recommended (Sections 5.4 and 6.4).
- Petroleum-product related staining was observed in the vicinity of one air compressor located inside Building 378. Trenches appeared to be associated with former hydraulic lifts were also observed in the area of staining in Building 378. It is MACTEC's opinion that the potential subsurface contamination poses a potential environmental risk to the subject property. Subsurface assessment in the area is recommended (Section 6.7).
- Three former hydraulic lifts were observed inside Building 368, a former auto repair shop. Floor staining was observed around the former hydraulic lifts. It is MACTEC's opinion that the potential subsurface contamination poses a potential environmental risk to the subject property. Subsurface assessment in the area is recommended (Section 6.3).
- Beach Firing Range, located on the beach down slope from the bluff area south of Bartlett Ravine where weapons reportedly were fired at targets placed in the front of the bluff, is an Army IR site located on the subject property. Sediment and subsurface samples were collected and results were below TACO Tier 1 residential objectives (Section 5.4). Based on the sampling results, this site does not present an environmental concern to the subject property.

- Remediation has reportedly been completed at Coal Storage Area (CSA) #3, Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site 12 - Vehicle & Equipment Storage Area #8 (Section 5.4). However, a final closure report has not been provided for Coal Storage Area (CSA) #3. In order to confirm completeness of remediation, MACTEC recommends that a closure report be furnished for review or additional sampling be completed to determine if concentrations of PNAs or metals are present above TACO Tier 1 residential objectives.
- Three landfills are currently present on the subject property: Army IR Site #2 - Landfill #5, Army IR Site #3 - Landfill #6, and Army IR Site #4 - Landfill #7. The landfills are reportedly capped, but are subject to site restrictions and long term monitoring. Information has not been made available to MACTEC with regard to methane sampling at the landfills and closure. MACTEC recommends that methane sampling be completed at Army IR Site #3 - Landfill #6 and Army IR Site #4 - Landfill #7, and that sampling be completed on the eastern side of Army IR Site #2 - Landfill #5 to assess the environmental impacts from these sites to the subject property (Section 5.4).
- Environmental concerns were identified at the following Army IR sites: Wells Ravine Tributary North, IR Site #7 - Vehicle & Equipment Storage Area #3, IR Site #5 - Excavation Area #8, IR Site #11 - Vehicle & Equipment Storage Area #7, IR Site #13 - Bartlett Ravine, IR Site #15 - Van Horne Ravine, IR Site #16 - Shenck Ravine, IR Site #17 - Building 384 - Former Ammunition Storage Building, IR Site #18 - Building 389 - Former Ammunition Storage Building, IR Site #19 - Building 390 - Former Ammunition Storage Building, IR Site #20 - Building 388 - Former CAC Firing Range, IR Site #23 - Sewage Treatment Plant Drying Beds, IR Site #24 - Former Incinerator, IR Site #27 - Acid Pit near Building 378, IR Site #35 - Building 361 Yard Area - Former Photo Shop, IR Site #36 - Building 368 Yard Area - Former Auto Mechanics Shop, and IR Site #37 - Building 377 Yard Area - Former Pesticides Storage. It is MACTEC's opinion that elevated concentrations of constituents of concern reported at these Army IR sites pose potential environmental risk to the subject property. MACTEC recommends that additional assessment be performed at these sites to assess the environmental impacts from these sites to the subject property (Section 5.4).
- Building 368 - A manhole which may have been used as a grease trap to contain petroleum products washed from the vehicles during the car washing process is present. This is a potential recognized environmental condition to the subject property (Section 6.14).
- Building 70, located adjacent west of the Main Navy property is an Army IRP site. Building 70 was used for storage of pesticides and herbicides historically. Surface and subsurface soil adjacent to Building 70 was reportedly contaminated with arsenic. The site has undergone investigation and remedial action by the Army and confirmation sample results were provided and reviewed. Based on the sampling results, this site does not present an environmental concern to the subject property (Sections 2.5 and 5.4).
- Building 180, located adjacent to the northeast of the Navy Westover property, was listed as having 61 USTs containing heating oil, diesel fuel, gasoline or used oil. These USTs were reported to be closed and or removed. No information has been found as to whether these tanks were actually located at Building 180 or whether Building 180 was used as the address for registration of these USTs. Building 180 was also identified on the LUST incident report on the orphan list. A LUST incident was reported to the IEPA in 2001 and the incident #20010520 remains open. This site is downgradient of the Westover Road property and is expected to present minimal environmental risk to the property (Sections 2.5 and 3.1).

- Building 379 is located on Army Reserve property south of Bartlett Ravine and west of Building 142 and Patten Road. A 1,000-gallon petroleum UST and contaminated soil were removed from the site in 1997. MACTEC reviewed soil sample results which indicated that no soil concentrations exceeded TACO Tier 1 residential objectives. Based on the sampling results, this site does not present an environmental concern to the subject property.
- Ten areas of wetlands were identified on the Main Navy property. Although wetlands are not a recognized environmental condition, special permitting may be required if development plans include an impact to identified wetland areas (Section 8.6).
- Sixteen historical properties were identified on the subject property. Continued coordination with SHPO regarding these properties should occur (Section 5.4 and 8.8).
- Based on past asbestos surveys and the date of construction of the buildings, it is likely that asbestos-containing materials are present at the subject property. MACTEC is currently completing a comprehensive asbestos survey (Section 8.3).
- Previous studies and inspections have identified the presence of lead-based paint in housing buildings, and the presence of both exterior and interior lead-based paint in administrative buildings located on the subject property. Elevated lead concentrations were reported in soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664. MACTEC recommends that soil sampling be performed in these areas to determine the degree and extent of lead contamination (Section 5.4).

11.0 CONCLUSIONS

MACTEC has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E 1527-00 of the Forest City Washington facility located at Fort Sheridan, Illinois. Any exceptions to or deletions from this practice are described in Section 12.0 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the subject property except for the following:

- Underground storage tanks (USTs) were removed from ten on-site buildings: Building 141, 142, 162, 208, 209, 368, 369, 377, 384, and 440. Contaminated soil was also excavated and removed. Soil samples were reportedly collected from the tank excavations and compared to the Illinois Environmental Protection Agency (IEPA) Tiered Approach to Corrective Action Objectives (TACO) Tier 1 residential soil remediation objectives. Closure soil sample results at buildings 141, 208, 369, 377, 384 and 440 indicated that petroleum constituents of concern were below the IEPA TACO Tier 1 residential soil remediation objectives; therefore, no further investigation or remediation appears to be necessary at these locations. No Further Remediation (NFR) letters were obtained from the IEPA for leaking underground storage tanks (LUSTs) at buildings 142, 209, and 368. Therefore, potentially contaminated soils associated with a LUST may remain at building 162 and are considered a recognized environmental condition (Sections 5.4 and 6.4).
- Four 2,000-gallon heating oil USTs were reportedly abandoned in-place at each of the following buildings: Buildings 800 through 806. No documentation of soil or residual product removal was provided. One soil sample collected at Building 801 had detected concentrations of polynuclear aromatic hydrocarbons (PNAs) concentrations which exceeded the IEPA TACOP Tier 1 residential soil remediation objectives. Therefore, potentially contaminated soils associated with these heating oil LUSTs are a recognized environmental condition (Sections 5.4 and 6.4).
- A total of 50 ASTs, presumably used to store heating oil, were located on the subject site. Most of the ASTs were observed inside concrete containment. Many of the concrete containment structures had pipes which led to the ground outside, and valves in these pipes were observed to have been left open. Staining inside the containment and/or around the pipe draining from the containment to the surrounding ground was observed at several locations. Therefore, potentially contaminated soils associated with these ASTs are a recognized environmental condition (Sections 5.4 and 6.5).
- Petroleum-product related staining was observed in the vicinity of one air compressor located inside Building 378. Trenches appeared to be associated with former hydraulic lifts were also observed in the area of staining inside Building 378. Potentially contaminated soils associated with this staining and associated trenches are a recognized environmental condition (Section 6.7).
- Three former hydraulic lifts were observed inside Building 368, a former auto repair shop. Floor staining was observed around the former hydraulic lifts. Potentially contaminated soils associated with leaking hydraulic lifts are a recognized environmental condition (Section 6.3).
- Remediation is reported to have been completed at the following Installation Restoration (IR) sites: Coal Storage Area (CSA) #3, Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site 12 - Vehicle & Equipment Storage Area #8. Closure report information has been reviewed by MACTEC for Army IR Site #22 - Coal Storage Area (CSA) #4, and Army IR Site

12 – Vehicle & Equipment Storage Area #8 and results are below TACO residential objectives. However, no closure report information was obtained for Coal Storage Area (CSA) #3, which extends onto the site at Bartlett Ravine. Therefore, pending receipt of information or sampling results verifying clean closure of Coal Storage Area (CSA) #3, this site is considered a recognized environmental condition to the subject property (Section 5.4).

- Three landfills are currently present on the subject property: Army IR Site #2 - Landfill #5, Army IR Site #3 - Landfill #6, and Army IR Site #4 - Landfill #7. The landfills are reportedly capped, but are subject to siting restrictions and long term monitoring. Information has not been made available to MACTEC with regard to methane sampling and closure of the landfills. These landfills are a recognized environmental condition to the subject site (Section 5.4).
- Army IR Site #5 - Excavation Area #8 is a disturbed area related to a bluff stabilization project, also believed to represent the former location of a borrow pit area used in the production of bricks. Previous soil sampling results had PNA concentrations which were above TACO Tier 1 residential objectives to 10 feet deep. A Phase III investigation indicated that fill materials with construction debris were present to a depth of eight feet. Information with regard to closure of this site was requested and has not been received. This IR site is considered a recognized environmental condition to the subject property (Section 5.4).
- Wells Ravine Tributary North Extension, a northern tributary of Wells Ravine that extends toward Building 369 (Former Youth Center and adjacent playground) is an Army IR site located on the subject property. Fill material associated with this tributary was identified during the interim remedial actions implemented at Landfill #7. During the installation of the re-routed storm sewer around Landfill #7, construction equipment unearthed municipal refuse and other waste. Phase II and III sampling was conducted and samples were analyzed for VOCs, SVOCs, metals, pesticides, PCBs, dioxins and explosives. PNAs and lead were detected above TACO Tier 1 residential objectives. This fill site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #7 – Vehicle & Equipment Storage Area #3 is a 6.7-acre area west of Patten Road and north of Building 142 and contiguous to the north side of former Building 208. in surface and subsurface soil. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #11 – Vehicle & Equipment Storage Area #7 has historically had leaks and spills from military vehicles and equipment. Previous soil sampling results had detected PNA concentrations which were above TACO Tier 1 residential objectives in surface and subsurface soil. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Prior investigations conducted at Army IR Site #13 – Bartlett Ravine consisted of sampling of surface water from the ravine and its outfall, and sediment from the ravine and beach outfall area. PNAs and pesticides were reported at concentrations above TACO Tier 1 residential objectives in surficial soils and sediment samples collected from the ravine and beach outfall area. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #15 – Van Horne Ravine is located on Navy property between Boles Loop and McKibben Road east of Patten Road. Effluent from Building 361, a former photo shop and Building 368, a former auto shop, and from construction debris in the area, were reported to flow to Van Horne Ravine. PNA concentrations were reported above TACO Tier 1 residential objectives in

sediment samples collected from the Ravine and its outfall. Bromodichloromethane, chloroform and chloride were detected in surface water samples at concentrations above surface water criteria. This site is considered a recognized environmental condition to the subject property (Section 5.4).

- Army IR Site #16 – Shenck Ravine is located on the southern part of the subject property where surface and storm water in the area flows into Shenck Ravine. Surface water and sediment sample collected previously in the ravine and its outfall had PNA concentrations above IEPA TACO Tier 1 residential soil remediation objectives. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Previous surface soil sampling conducted at Army IR Site #17 through 20 (Army IR Site #17 – Building 384 – Former Ammunition Storage Building, Army IR Site #18 – Building 389 – Former Ammunition Storage Building, Army IR Site #19 – Building 390 – Former Ammunition Storage Building, Army IR Site #20 – Building 388 – Former CAC Firing Range) identified PNAs in soils at concentrations above the IEPA TACO Tier 1 soil remediation objectives. These sites are considered a recognized environmental condition to the subject property (Section 5.4).
- Previous soil and groundwater sampling was conducted at Army IR Site #23 – Sewage Treatment Plant Drying Beds which identified one PNA at concentrations which exceeded its TACO Tier 1 residential soil remediation objective in surface soil samples, and gross Beta radiation at a level above its background level was detected. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #24 – Former Incinerator is adjacent to and within the setback zone of Landfill #7. Soil samples collected in this area had concentrations of one PNA which exceeded the IEPA TACO Tier 1 residential soil remediation objective. Dioxin was also detected in a soil sample, but no TACO soil remediation objective is listed for dioxin. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #27 is an Acid Pit near Building 378. Elevated lead concentrations exceeding the TACO Tier 1 residential soil remediation objective were reported in soil samples at five feet below ground surface and PNA concentrations exceeding TACO Tier 1 residential soil remediation objectives were reported in soil samples at up to 28 feet below ground surface. The site is within Landfill #5 which is being remediated by Kemron. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #35 - Building 361 Yard Area is a Former Photo Shop where potential sources of contamination include leaks from the sewer system of chemicals used in photo processing activities. PNA concentrations exceeding TACO Tier 1 residential soil remediation objectives were reported in subsurface soils at up to five feet below ground surface. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- Army IR Site #36 is the Building 368 Yard Area also known as the Former Auto Mechanics Shop where elevated PNA and lead concentrations were reported in surface soil samples. Chloride concentrations in groundwater exceeded TACO Tier 1 residential remediation objectives. This site is considered a recognized environmental condition to the subject property (Section 5.4).
- A subsurface assessment was completed at the Army IR Site #37 at Building 377 Yard Area, the Former Pesticides Storage area. PNA concentrations in surface and subsurface soil samples exceeded TACO Tier 1 residential objectives. This site is considered a recognized environmental

condition to the subject property (Section 5.4).

- Previous studies and inspections have identified the presence of lead concentrations, above TACO Tier 1 residential objectives, lead-based paint in housing buildings, and the presence of both exterior and interior lead-based paint in administrative buildings located on the subject property. Elevated lead concentrations, above IEPA TACO Tier 1 residential objectives, were reported in soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664. These locations are considered a recognized environmental condition to the subject property (Section 5.4).
- Building 368 – A manhole which may have been used as a grease trap to contain petroleum products washed from the vehicles during the car washing process is present. This is a potential recognized environmental condition to the subject property (Section 6.14)

The following items, while not considered to be a recognized environmental condition as defined by ASTM E 1527-00, may pose a financial or other impact to the subject site:

- Ten wetland areas have been located on the Main Navy property at Fort Sheridan. The wetlands include a complex of four swales along the bluff top at the southern end of the site, two areas of bluff-side seeps, and four riparian wetlands along Bartlett, Van Horne, and Shenck ravines. All of these wetlands are adjacent to Lake Michigan and under the jurisdiction of the US Army Corps of Engineers (Section 8.6).
- There are 16 historic properties located at the subject property, with 15 of these properties being duplex houses located along Westover Road. These 15 properties include Building 339, Buildings 341 through 353, and Building 355. The sixteenth property is Building 142, a former barracks that has been converted to office space. In 1997, the Navy started coordination with the SHPO concerning the potential disposal of these properties. On November 19, 1999, the SHPO indicated that "no adverse effect" would occur as long as the Navy included a protective "covenant" as part of any disposal agreement (Sections 5.4 and 8.8).
- Based on past asbestos surveys and the date of construction of the housing, it is likely that asbestos-containing materials are present at the subject property. Previous surveys have identified asbestos containing materials in buildings at the site. Results to-date indicates that asbestos-containing materials are present in the housing and commercial buildings at the site. Locations of confirmed ACM include walls, wallboard, ceilings, ceiling tiles, pipe wrap, floor tiles and mastic (Section 8.3).
- A lead-based paint risk assessment prepared in March of 2005 and previous studies identified the presence of lead-based paint in housing buildings, and the presence of both exterior and interior lead-based paint in administrative buildings located on the subject property. During the March 2005 risk assessment, limited paint sampling occurred solely in deteriorated areas, and other lead based paint most likely exists in these housing units. Elevated lead concentrations, above TACO Tier 1 residential objectives, were reported in soil samples collected near Buildings 420 through 428, 430, 431, 440, 441, 445, 447, 495, 642, 652, 657, 660, 661, 663 and 664 (Sections 5.4 and 8.3).

12.0 DEVIATIONS

Since the use of the subject property had not changed over long periods of time, research of the history during those periods was conducted by reviewing materials available at greater than five year intervals.

The interior of the three lift stations: Buildings 300, 301 and 681; Building 336; and two Kemron Buildings: 212 and 100 were not observed since the buildings were locked and access was not provided by the site contact.

13.0 REFERENCES

- Aerial photographs dated 1939, 1954, 1961, 1967, 1974, 1985, 1993, 2000, and 2004, obtained from the United States Department of Agriculture (USDA) Soil and Water Conservation District of Lake County, located in Grayslake, Illinois.
- American Society for Testing and Materials (ASTM) 2001. Practice E 1527-00 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.
- United States Geological Survey (USGS), Highland Park, Illinois Quadrangle Map, 7.5-Minute Topographic Series, dated 1993.
- *Soil Survey of Lake County, Illinois*, United States Department of Agriculture, Soil Conservation Service, dated 1968.
- *Quaternary Deposits of Illinois*, Illinois State Geological Survey, dated 1979.
- *Geologic Map of Illinois*, Illinois State Geological Survey, dated 1967.
- EDR Radius Map with GeoCheck, dated July 25, 2005
- On-site interview with Robert Caselli, Housing Manager, Great Lakes Navy Housing Department.

14.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

This report pertains to the subject site located east of Sheridan Road in Fort Sheridan, Illinois. Our professional services have been performed using the degree of care and skill ordinarily exercised under similar circumstances by other environmental professionals practicing in this field.

The representations made in this report are accurate and true to the best knowledge of the undersigned.

REPORT PREPARED BY:

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12/1/05
Date

BY DEN WITH PERMISSION

UNDER REVIEW BY:

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Principal Geologist
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Dec 1, 2005
Date

BY JANK WITH PERMISSION

15.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

MACTEC is a multidisciplinary environmental consulting firm that has provided comprehensive environmental consulting services to industry since 1965. MACTEC offers the full range of technical disciplines to address environmental issues arising in air, soil, surface water, groundwater, or biota.

MACTEC is a major environmental subsidiary of MACTEC, Inc., a full service environmental management company ranked #8 in Engineering News Record annual 'Top 20 All Environmental Firms' listing, based in Golden, Colorado. MACTEC employs more than 1,000 professionals working out of a nationwide network of offices.

APPENDIX A

Figures

SOURCE: USGS Highland Park, Illinois Quadrangle, 1993



KEY

- = Fort Sheridan Boundary
- = Navy Property Boundary



MACTEC

Engineering and Consulting, Inc.

DRAWN
RAS

PROJECT NUMBER
3205050472.01

APPROVED

Site Location & Topographic Map
Navy Property At Fort Sheridan
Highland Park, IL

DATE
08/04/05

REVISED DATE

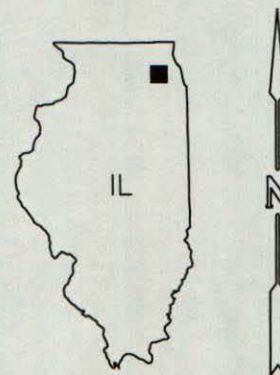
FIGURE
1

SOURCE: USGS Aerial Photograph, Highwood, Illinois, 1998



KEY

- = Fort Sheridan Boundary
- = Navy Property Boundary



MACTEC

Engineering and Consulting, Inc.

DRAWN
RAS

PROJECT NUMBER
3205050472.01

APPROVED

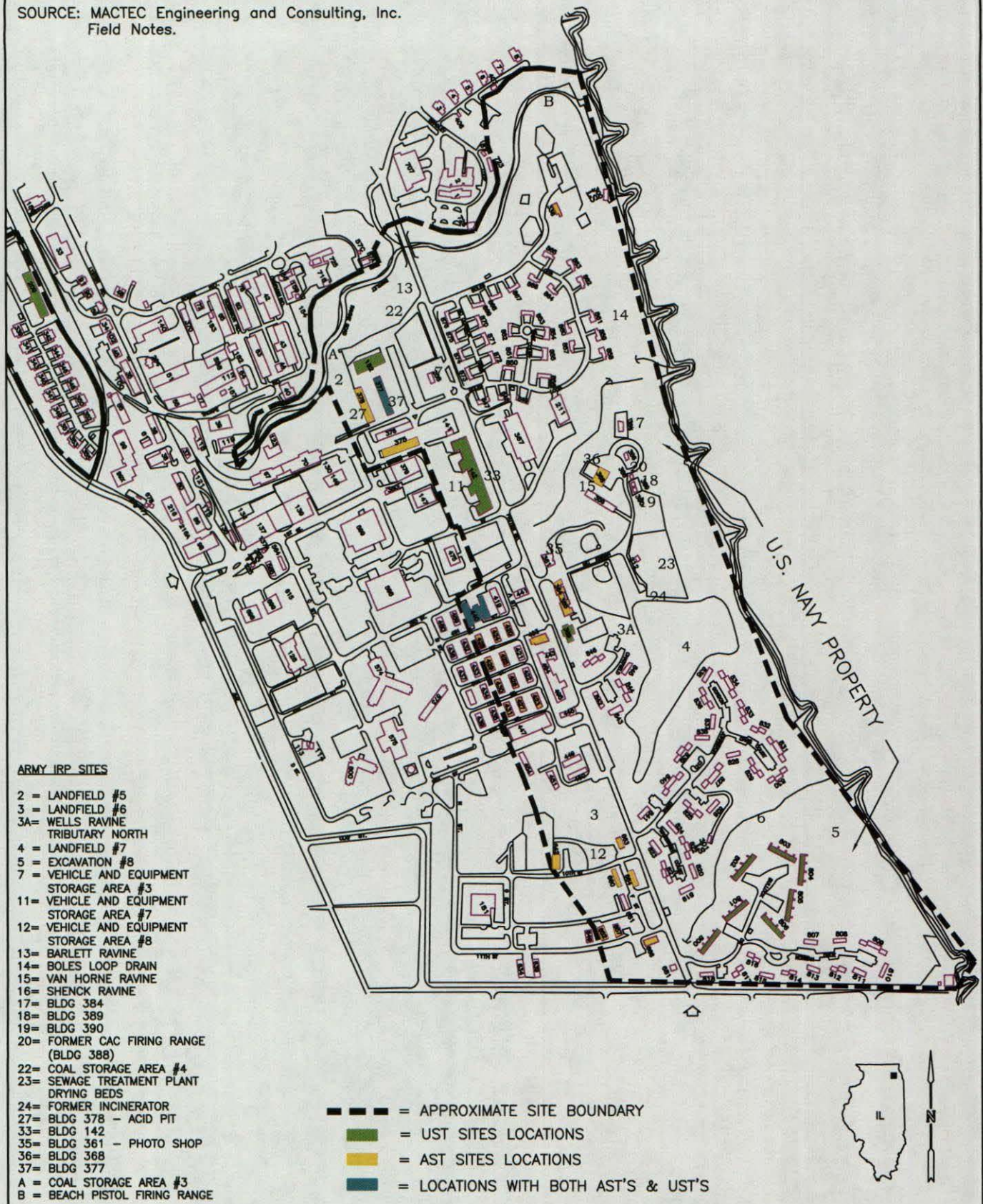
Site Location & Aerial Photograph
Navy Property At Fort Sheridan
Highland Park, IL

DATE
08/04/05

REVISED DATE

FIGURE
2

SOURCE: MACTEC Engineering and Consulting, Inc.
Field Notes.



MACTEC

Engineering and Consulting, Inc.

DRAWN
GAP

PROJECT NUMBER
3205050472.01

APPROVED

Location of AST, UST, & Army IRP Sites
Navy Property At Fort Sheridan
Highland Park, IL.


FIGURE
3


DATE
08/04/05


REVISED DATE


APPENDIX B


Photographic Documentation


Photograph #1	Remarks
	View of 400 numbered buildings.


Photograph #2	Remarks
	View of 300 numbered buildings.

Photograph #3	Remarks
	View of 600 numbered buildings.



Photograph #4	Remarks
	View of housing units numbered in the 800's.


Photograph #5	Remarks
	Three ASTs containing sodium nitrate within a fenced area outside Building 300.


Photograph #6	Remarks
	Building 300 – Lift Station.


Photograph #7	Remarks
 A photograph showing a floor drain on a tiled floor next to a furnace. The drain is a circular metal grate. The furnace is a large, light-colored metal unit with various pipes and valves. The floor is made of large, light-colored tiles.	<p>Building 809D - A floor drain next to the furnace on the ground floor.</p>


Photograph #8	Remarks
 A photograph of a two-story building, identified as Building 808. The building is a light-colored, two-story structure with a flat roof. It has several windows and a central entrance. There are some bushes in front of the building and a paved area in the foreground.	<p>Building 808.</p>


Photograph #9	Remarks
	Building 821.
Photograph #10	Remarks
	Pad mounted transformer located in front of the 800-numbered housing units.

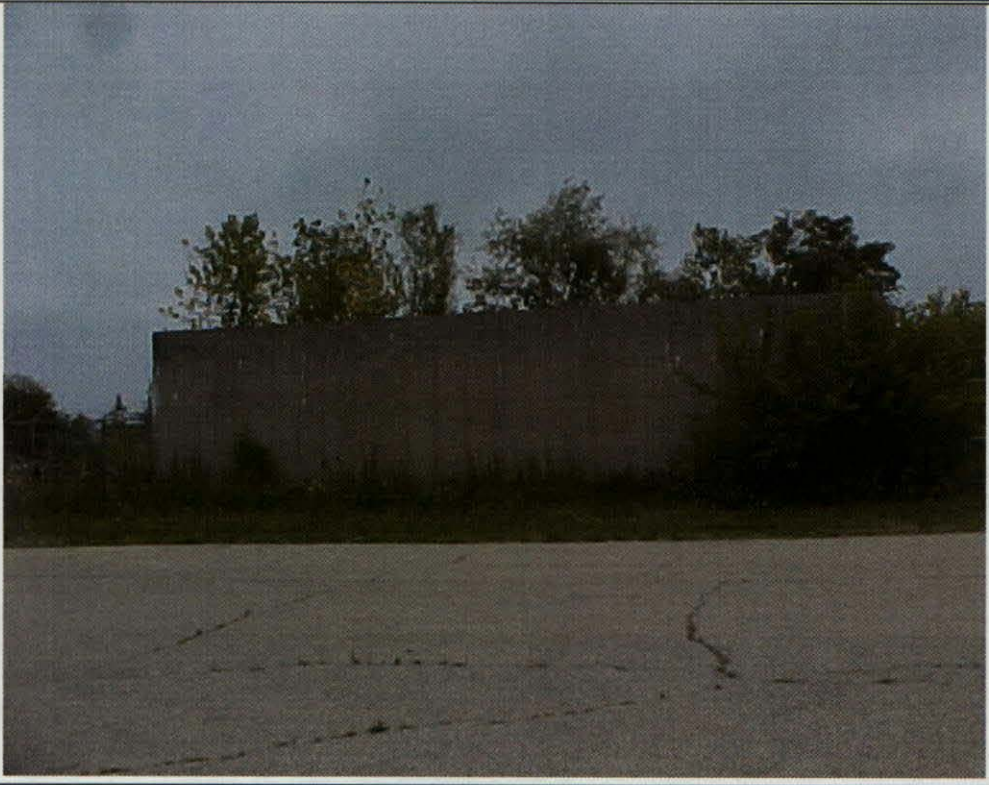
Photograph #11	Remarks
	<p>Building 368 – a former vehicle maintenance garage.</p>


Photograph #12	Remarks
	<p>An AST outside Building 368.</p>


Photograph #13	Remarks
	Hydraulic lift inside Building 368.


Photograph #14	Remarks
	View of another hydraulic lift inside Building 368.


Photograph #15	Remarks
	Manhole inside one of the rooms in Building 368.


Photograph #16	Remarks
	Building wall remnants – Buildings 386, 388, 389, 390.


Photograph #17	Remarks
 A photograph showing a dirt path or clearing in a wooded area. There are several trees with green leaves, and the ground is covered with dirt and some fallen leaves. A small black object, possibly a survey marker, is visible on the right side of the path.	Horne Ravine.


Photograph #18	Remarks
 A photograph showing a large, dark, cylindrical object, likely an Aboveground Storage Tank (AST), inside a building. The tank is surrounded by wooden framing and other structural elements. The lighting is dim, and the overall scene is dark.	An AST inside Building 358.


Photograph #19	Remarks
	Building 100 – Kemron Landfill Maintenance.


Photograph #20	Remarks
	Landfill #7.


Photograph #21	Remarks
 A photograph showing two white, cylindrical aboveground storage tanks (ASTs) situated outdoors. The tanks are positioned side-by-side within a concrete foundation. The tank on the left is marked with the number '364'. The tank on the right is marked with 'RD. 1' and 'FUEL OIL'. They are located next to a light-colored building with several windows. A large, dark green bush is partially visible behind the tanks.	Two ASTs outside Building 364.


Photograph #22	Remarks
 A photograph of a single-story building with a light-colored, possibly concrete or masonry, exterior. The building features a large, white, roll-up garage door on the left side. To the right of the door is a smaller window. The building is situated on a gravel or dirt lot. The sky is overcast.	Building 365.


Photograph #23	Remarks
 A photograph showing three large, horizontal, cylindrical tanks (ASTs) made of metal, heavily rusted and weathered. They are situated outdoors on a concrete pad next to a white building with a dark roof. The tanks are arranged in a row, with the closest one in the foreground and two more behind it. The background shows some greenery and a utility pole.	Three ASTs outside Building 366.


Photograph #24	Remarks
 A photograph of a pad-mounted transformer, a large, dark, rectangular metal box, situated outdoors on a concrete pad. To the left of the transformer is a large, light-colored metal door or panel with a handle. The background shows a grassy area and some trees.	Pad-mounted transformer outside Building 211.


Photograph #25	Remarks
	Building 211.


Photograph #26	Remarks
	One AST inside Building 377 – no floor staining observed.


Photograph #27	Remarks
	ASTs outside Building 378.


Photograph #28	Remarks
	One air compressor with minor floor staining inside Building 378.


Photograph #29	Remarks
 A photograph showing the interior of a dark building. On the left, a bright yellow vertical wall or pillar is visible. The rest of the room is dimly lit, showing wooden framing and a dark floor. A trench is visible on the floor, and a floor drain is located near a dark object, likely an air compressor, in the background.	<p>A trench with floor drain near the air compressor in Building 378.</p>

Photograph #30	Remarks
 A photograph of two large, horizontal, silver cylindrical tanks (ASTs) situated outdoors. They are positioned in front of a long, low, light-colored building. The tanks are mounted on a concrete foundation. The ground is paved, and there are some weeds growing along the edges. The sky is clear and blue.	<p>Two ASTs outside Building 376.</p>

Photograph #31	Remarks
 A photograph showing a pad-mounted transformer located outdoors next to a light-colored building. The transformer is a dark, rectangular unit mounted on a concrete pad. A utility pole with wires is visible in the background, and a grassy area is in the foreground.	<p>Pad-mounted transformer outside Building 376.</p>

Photograph #32	Remarks
 A photograph showing two above-ground storage tanks (ASTs) located outdoors. The tanks are cylindrical and mounted on a concrete foundation. The tank on the left is labeled "NO. 1 FUEL OIL" and the tank on the right is labeled "666". They are situated next to a building with horizontal siding and surrounded by trees and bushes.	<p>Two ASTs outside Building 666.</p>

Photograph #33	Remarks
 A photograph showing two large, cylindrical, light-colored above-ground storage tanks (ASTs) situated outdoors on a grassy area. The tanks are positioned in front of a two-story building with light-colored horizontal siding and several windows. A concrete foundation or containment area is visible around the base of the tanks. A paved walkway runs along the right side of the tanks.	<p>Two ASTs outside Building 657.</p>

Photograph #34	Remarks
 A photograph showing two large, cylindrical, light-colored above-ground storage tanks (ASTs) situated outdoors on a grassy area. The tanks are positioned in front of a building with a weathered wooden door. The left tank is labeled '652' and the right tank is labeled 'NO. 1 FUEL OIL'. Both tanks are mounted on a concrete foundation. A metal pipe runs horizontally between the two tanks. The right tank shows some staining on its side.	<p>Two ASTs outside Building 652 – staining inside the AST containment area.</p>

Photograph #35



Remarks

One AST outside
Building 660.


Photograph #36





Remarks


Two ASTs outside
Building 664.


Photograph #37	Remarks
	Empty containment outside Building 663.


Photograph #38	Remarks
	One AST outside Building 642.


Photograph #39	Remarks
	<p>View of Building 642 – a former garage/vehicle maintenance building.</p>


Photograph #40	Remarks
	<p>Broken concrete, broken pipes and metal pieces observed inside Building 642.</p>


Photograph #41	Remarks
	Metal pipes, concrete walls - outside Building 642.


Photograph #42	Remarks
	View of Building 361.


Photograph #43	Remarks
	MWR vehicle storage lot.

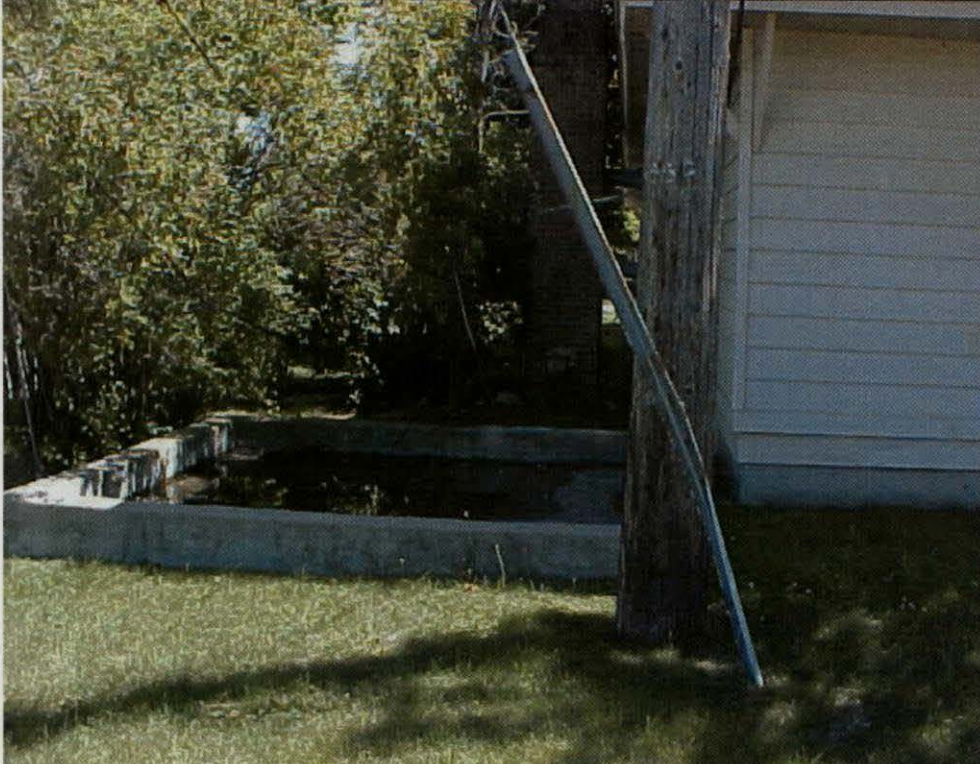
Photograph #44	Remarks
	Floor drain inside Building 361.


Photograph #45	Remarks
	View of Building 419.


Photograph #46	Remarks
	One AST sitting on ground (no staining of the floor observed) outside Building 440.


Photograph #47	Remarks
	Two ASTs outside Building 428.


Photograph #48	Remarks
	Two ASTs located outside Building 428.


Photograph #49	Remarks
 A photograph showing a concrete containment structure in the foreground, with a wooden post and a blue pipe leaning against a building with white siding in the background. There are green bushes to the left.	<p>An empty containment outside Building 421.</p>


Photograph #50	Remarks
 A photograph of a long, single-story abandoned warehouse with a dark roof and several loading docks. The building is surrounded by overgrown grass and weeds. The sky is clear and blue.	<p>View of Building 447 – an abandoned warehouse with loading docks.</p>

Photograph #51	Remarks
	<p>View of Building 209 – loading dock.</p>

Photograph #52	Remarks
	<p>View of Building 349 – Westover Property.</p>

Photograph #53	Remarks
	View of Building 336 – two ASTs sitting on floor outside the building.

Photograph #54	Remarks
	A storage shed located next to Building 336.

Photograph #55	Remarks
	View of Building 336 and the storage shed.

APPENDIX C

Administrative/Commercial Building

Table 1. Summary of Administrative/Commercial Buildings

Building Information	Status	General Location	Description/Comments
Building 141	In use	West of Patten Road and North of Building 142	1 story generator building brick structure, 3 USTs removed
Building 142	Occupied	West of Patten Road in a central location of Fort Sheridan	3 story office building, brick structure – to be declared as a historical building
Building 142	Abandoned	West of Patten Road and south of Bartlett Ravine	1 story bowling center, metal structure, former bowling alley
Building 208	Demolished	West of Patten road and south of Building 142	No longer in existence, former gas station
Building 209	Abandoned	North of Westover Road family housing at west side of Fort Sheridan	1 story warehouse with loading deck wood structure, UST closed
Building 211	Abandoned	East of Patten Road and north of Van Horne Ravine	1 story warehouse, cinderblock brick structure
Building 212	In use	East of Patten Road and north of Landfill #7	1 story storage building, metal structure. No access. Occupied by Kamron Lift Station.
Building 300	In use	East of Patten Road	1 story, concrete building. 3 ASTs containing sodium nitrate..
Building 301	In use	North of Shenck Ravine in the southeast area of Fort Sheridan	1 story pump house, concrete structure
Building 336	Abandoned	East of Patten Road and south of Bartlett Ravine	1 story, cinderblock brick structure (XMTR) Building Radio), 3 ASTs, no access
Building 358	Abandoned	East of Patten Road and south of Van Horne Ravine	1 story, metal structure, quonset hut used for storage, one AST inside the building
Building 361	Abandoned	East of Patten Road and south of Van Horne Ravine	1 story, cinderblock brick structure, former photo lab building
Building 364	Abandoned	East of Patten Road and south of Van Horne Ravine	1 story, cinderblock brick structure, former education facility, 2 ASTs outside the building
Building 365	Abandoned	East of Patten Road and south of Van Horne Ravine	1 story, cinderblock brick structure two ASTs outside the building
Building 367	Abandoned	East of Patten Road and north of Van Horne Ravine	1 story warehouse, cinderblock brick structure
Building 368	Abandoned	East of Patten Road and south of Van	1 story autocraft shop, wood structure, one

		Horne Ravine	AST, one closed UST, 3 sets of former hydraulic lifts
Building 369	Abandoned	East of Patten Road and south of Van Horne Ravine	1 story former day care facility, cinderblock brick structure, one AST, one closed UST
Building 375	Abandoned	West of Patten Road and south of Bartlett Ravine	1 story, metal structure, 4 ASTs
Building 376	Abandoned	West of Patten Road and south of Bartlett Ravine	1 story, metal structure
Building 377	Abandoned	West of Patten Road and south of Bartlett Ravine	1 story, metal structure, one AST inside the building, one AST outside the building, one closed UST
Building 378	Abandoned	West of Patten Road and south of Bartlett Ravine	1 story, metal structure, 3 ASTs, one air compressor inside the building, trench and drain on the floor
Building 384	Abandoned	East of Patten Road and south of Van Horne Ravine	1 story, concrete structure used for ammunition storage
Building 386	Abandoned	East of Patten Road and south of Van Horne Ravine	Only building foundation present
Building 388	Abandoned	East of Patten Road and south of Van Horne Ravine	Only building foundation present
Building 389	Abandoned	East of Patten Road and south of Van Horne Ravine	Only building foundation present
Building 390	Abandoned	East of Patten Road and south of Van Horne Ravine	Only building foundation present
Building 419	Abandoned	West of Patten Road and south of Building 142	1 story, wood structure, recreation center
Building 420	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 421	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 422	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 423	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 424	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks

Building 425	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 426	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 427	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 428	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 429	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 430	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 431	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, 2 ASTs, former barracks
Building 440	Abandoned	West of Patten Road and south of Building 142	1 story, wood structure, 1 AST, former barracks
Building 441	Abandoned	West of Patten Road and south of Building 142	1 story, wood structure
Building 445	Abandoned	West of Patten Road and south of Building 142	1 story warehouse, wood structure
Building 447	Abandoned	West of Patten Road and south of Building 142	1 story warehouse with loading dock, wood structure
Building 449	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, former barracks
Building 454	Abandoned	West of Patten Road and south of Building 142	2 story, wood structure, former barracks
Building 493	Abandoned	West of Patten Road and south of Building 142	1 story chapel, wood structure, 2 ASTs inside mechanical room
Building 495, 443, and 494 (all three buildings are connected forming a single building)	Abandoned	West of Patten Road and south of Building 142	1 story warehouse, wood structure
Building T-642	Abandoned	On 10 th Street, southwest area of Fort Sheridan	1 story warehouse garage, wood structure, 1 AST
Building T-652	Abandoned	On 11 th Street near the South Gate	2 story, wood structure, 1 AST
Building T-657	Abandoned	On 11 th Street near the South Gate	2 story, wood structure, 2 ASTs
Building T-660	Abandoned	West of Patten Road near the South Gate	1 story, wood structure, 1 AST

Building T-661	Abandoned	West of Patten Road near the South Gate	1 story, wood structure, 1 AST
Building T-663	Abandoned	West of Patten Road near the South Gate	1 story, wood structure
Building T-664	Abandoned	West of Patten Road near the South Gate	1 story, wood structure, 2 ASTs
Building T-666	Abandoned	East end of 11 th Street near the South Gate	1 story, wood structure, 2 ASTs
Building T-681	Abandoned	West of Burlock Drive on Patten Road	1 story pump house with basement, wood structure

NOTE: Observations based on MACTEC's Site Reconnaissance on July 22 and 27, 2005, and information provided by Fort Sheridan and Glenview, Great Lakes Navy Family Housing Department.

APPENDIX D

Regulatory Information



EDR® Environmental
Data Resources Inc

The EDR Radius Map with GeoCheck®

**Navy Property at Fort Sheridan
East of Sheridan Road
Highland Park, IL 60037**

Inquiry Number: 01473503.1r

July 25, 2005

The Standard in Environmental Risk Management Information

**440 Wheelers Farms Road
Milford, Connecticut 06460**

Nationwide Customer Service

**Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com**

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Government Records Searched/Data Currency Tracking.....	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum.....	A-1
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Physical Setting Source Map.....	A-7
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Physical Setting Source Records Searched.....	A-11

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

EAST OF SHERIDAN ROAD
HIGHLAND PARK, IL 60037

COORDINATES

Latitude (North):	42.209600 - 42° 12' 34.6"
Longitude (West):	87.810800 - 87° 48' 38.9"
Universal Transverse Mercator:	Zone 16
UTM X (Meters):	433070.2
UTM Y (Meters):	4673152.5
Elevation:	679 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property:	42087-B7 HIGHLAND PARK, IL
Source:	USGS 7.5 min quad index

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL.....	National Priority List
Proposed NPL.....	Proposed National Priority List Sites
CERC-NFRAP.....	CERCLIS No Further Remedial Action Planned
RCRA-TSDF.....	Resource Conservation and Recovery Act Information

STATE ASTM STANDARD

SHWS.....	State Oversight List
IMPDMNT.....	Surface Impoundment Inventory

FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
--------------	------------------------------------

EXECUTIVE SUMMARY

ROD	Records Of Decision
Delisted NPL	National Priority List Deletions
HMIRS	Hazardous Materials Information Reporting System
MLTS	Material Licensing Tracking System
MINES	Mines Master Index File
NPL Liens	Federal Superfund Liens
PADS	PCB Activity Database System
INDIAN RESERV	Indian Reservations
UMTRA	Uranium Mill Tailings Sites
US ENG CONTROLS	Engineering Controls Sites List
ODI	Open Dump Inventory
FUDS	Formerly Used Defense Sites
RAATS	RCRA Administrative Action Tracking System
TRIS	Toxic Chemical Release Inventory System
TSCA	Toxic Substances Control Act
SSTS	Section 7 Tracking Systems
FTTS INSP	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

ENG CONTROLS..... Sites with Engineering Controls

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas..... Former Manufactured Gas (Coal Gas) Sites

BROWNFIELDS DATABASES

US BROWNFIELDS..... A Listing of Brownfields Sites
US INST CONTROL..... Sites with Institutional Controls
Inst Control..... Institutional Controls
BROWNFIELDS..... Municipal Brownfields Redevelopment Grant Program Project Descriptions

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

FEDERAL ASTM STANDARD

EXECUTIVE SUMMARY

CERCLIS: The Comprehensive Environmental Response, Compensation and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, and dated 02/15/2005 has revealed that there is 1 CERCLIS site within approximately 1.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
US ARMY FORT SHERIDAN	BLDG 119	1/8 - 1/4NNE	B5	8

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 03/29/2005 has revealed that there is 1 CORRACTS site within approximately 2 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
US ARMY FORT SHERIDAN	BLDG 119	1/8 - 1/4NNE	B5	8

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-LQG list, as provided by EDR, and dated 05/20/2005 has revealed that there are 3 RCRA-LQG sites within approximately 1.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
FORT SHERIDAN NAVAL PROPERTY	FORT SHERIDAN NAVAL PRO	1/8 - 1/4NNE	B3	6
SKOKIE VALLEY LAUNDRY AND DRY	514 SHERIDAN RD	1/4 - 1/2S	F21	43
FABBRI MASONARY INC	331 BURCHELL AVE	1/4 - 1/2SW	140	58

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators

EXECUTIVE SUMMARY

(CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-SQG list, as provided by EDR, and dated 05/20/2005 has revealed that there are 13 RCRA-SQG sites within approximately 1.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
22 CLEANERS	848 SHERIDAN RD	1/8 - 1/4 WNW	8	34
SUN CLEANERS	108 WASHINGTON	1/8 - 1/4 SW	C10	35
CLARK #1507	341 WAUKEGAN AVE	1/4 - 1/2 SSE	M52	65
WAYNE CLEANERS	337 WAUKEGAN	1/2 - 1 SSE	M55	66
ZEIT CLEANERS	306 WAUKEGAN AVE	1/2 - 1 SSE	M61	69
POPS HIGHWOOD	214 GREEN BAY ROAD	1/2 - 1 S	P72	75
NORTH SHORE MEMORIAL USAR	401 ANDERSON RD	1/2 - 1 NW	84	81
OLD ELM CLUB	800 OLD ELM RD	1 - 2 WNW	U92	88
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
US ARMY FORT SHERIDAN	BLDG 119	1/8 - 1/4 NNE	B5	8
EXXON MOBIL OIL CORPORATION ST	1000 SHERIDAN AVENUE	1/8 - 1/4 S	D12	36
PHILIP H SHERIDAN RESERVE CTR	3155 BLACKHAWK DR	1/4 - 1/2 NNE	H37	57
ROCKS ANN TRUCKING INC	333 HIGHWOOD AVE	1/2 - 1 SSW	67	72
HIGHLAND PARK CITY OF	1150 HALF DAY RD	1 - 2 SW	T86	82

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

A review of the ERNS list, as provided by EDR, and dated 12/31/2004 has revealed that there are 3 ERNS sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
212 BURCHELL AVE	212 BURCHELL AVE	1/4 - 1/2 SSW	24	46
WATER PLANT AT 4 WALKER AVE.	WATER PLANT AT 4 WALKER	1/4 - 1/2 SSE	J42	59
326 GREEN BAY	326 GREEN BAY	1/2 - 1 S	L56	66

STATE ASTM STANDARD

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Illinois Environmental Protection Agency's Available Disposal for Solid Waste in Illinois--Solid Waste Landfills Subject to State Surcharge list.

A review of the SWF/LF list, as provided by EDR, has revealed that there is 1 SWF/LF site within approximately 1.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
HIGHLAND PARK LSW TRANSFER STA	1150 HALF DAY ROAD	1 - 2 SW	T89	86

EXECUTIVE SUMMARY

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Illinois Environmental Protection Agency's LUST Incident Report.

A review of the LUST list, as provided by EDR, and dated 05/20/2005 has revealed that there are 35 LUST sites within approximately 1.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
AMIDEI, ARTHUR A.	433 SHERIDAN RD.	1/4 - 1/2S	G28	49
BACIO'S	424 SHERIDAN	1/4 - 1/2S	G31	52
BACIO'S	424 SHERIDAN ROAD	1/4 - 1/2S	G33	55
PALMERI, BOB	342 GREENBAY RD.	1/4 - 1/2S	L48	61
CLARK OIL & REFINING	341 WAUKEGAN	1/4 - 1/2SSE	M51	64
CLARK REFINING & MARKETING, IN	341 WAUKEGAN AVE.	1/4 - 1/2SSE	M53	65
HIGHWOOD PLAZA REDEVELOPMENT L	308 WAUKEGAN AVE.	1/2 - 1 SSE	M59	68
MASSOCCO, MRS. A.; TRUSTEE	214 GREENBAY RD.	1/2 - 1 S	P69	73
OAK TERRACE SCHOOL	240 PRAIRIE AVE	1/2 - 1 SSW	Q75	77
VIVICO INC.	666 SKOKIE HWY.	1 - 2 S	85	82
OLD ELM COUNTRY CLUB	800 OLD ELM RD.	1 - 2 WNW	U91	87
HIGHLAND PARK HOSPITAL	718 GLENVIEW AVE.	1 - 2 S	W99	91
HIGHLAND PARK HOSPITAL	718 GLENVIEW AVENUE	1 - 2 S	W100	93
SHELL OIL CO.	2135 GREEN BAY RD.	1 - 2 SSE	106	99
INDIAN TRAIL ELEMENTARY SCHOOL	2075 ST. JOHNS	1 - 2 SSE	108	100
WERHANE SERVICE CENTER	1992 SECOND ST	1 - 2 SSE	110	102
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
U.S. ARMY FORT SHERIDAN	BLDG. 141	1/8 - 1/4NNE	B4	7
U.S. ARMY/FORT SHERIDAN BRAC O	15 CARRIAGE LN.	1/4 - 1/2NNW	E13	38
U.S. ARMY	15 CARRIAGE	1/4 - 1/2NNW	E14	39
MENO PASSINI PROPERTIES	532 SHERIDAN RD.	1/4 - 1/2S	F18	42
WINTRUST, INC.	507-509 NORTH SHERIDAN	1/4 - 1/2S	F20	43
FABBRI REALTY	331 BURCHELL AVE.	1/4 - 1/2SW	I41	58
FORTUNADO BUILDERS	25 RONAN RD., BLDG. 140	1/4 - 1/2N	K45	60
FORT SHERIDAN		1/2 - 1 NNE	57	67
VIZ AUTO REPAIR	20 PRAIRIE AVE.	1/2 - 1 S	P73	75
NORTHWOOD JR. HIGH	945 NORTH AVE.	1/2 - 1 WSW	S81	80
HIGHLAND PARK, CITY OF	1150 HALF DAY RD.	1 - 2 SW	T88	85
JACOBS, FREIDA	195 MAPLE AVE.	1 - 2 SE	94	89
AMOCO OIL CO.	2645 SKOKIE VALLEY RD.	1 - 2 WSW	V96	90
AMOCO OIL CO. #6938	2645 SKOKIE VALLEY RD.	1 - 2 WSW	V97	90
TWP. HIGH SCHOOL DIST. #113	433 VINE AVE.	1 - 2 SSE	98	91
MOBIL OIL CORP.	2580 SKOKIE VALLEY RD.	1 - 2 WSW	X101	96
EXXON MOBIL	2580 SKOKIE VALLEY RD.	1 - 2 WSW	X102	97
AMERICA'S CAR WASH	2744 SKOKIE VALLEY RD.	1 - 2 WSW	Y104	98
MISTER LEASING CORP.	2772 SKOKIE VALLEY RD.	1 - 2 WSW	Y105	98

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Illinois State Fire Marshal's STC Facility List.

A review of the UST list, as provided by EDR, and dated 06/06/2005 has revealed that there are 28 UST sites within approximately 1.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
PUBLIC WORKS BLDG	N BANK LN	1/8 - 1/4 SW	C9	34

EXECUTIVE SUMMARY

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
ESTATES WINDOWS LTD	531 BANK LN	1/4 - 1/2SSW	D16	40
DON LEWS MINI GAS MART	104 WASHINGTON ST	1/4 - 1/2WSW	25	47
AMIDEI ARTHUR A	433 SHERIDAN RD	1/4 - 1/2S	G29	50
BACIO ITALIAN DELI	424 SHERIDAN ROAD	1/4 - 1/2S	G32	53
HIGHWOOD WATER FILTRATION PLT	E WALKER AVE	1/4 - 1/2SSE	J43	59
DONS AUTO SERVICE & REPAIR	340 GREENBAY RD	1/4 - 1/2S	L49	62
#1507 CLARK SERVICE STATION	341 WAUKEGAN AVE	1/4 - 1/2SSE	M50	63
CONSTRUCTION SITE	306 WAUKEGAN AVE	1/2 - 1 SSE	M62	70
MAZZOCCO A FRANCES	214 GREEN BAY RD	1/2 - 1 S	P70	74
OAK TERRACE SCHOOL	240 PRAIRIE AVE	1/2 - 1 SSW	Q75	77
OLD ELM CLUB	800 OLD ELM RD	1 - 2 WNW	U90	86
EXMOOR C C	700 VINE AVE	1 - 2 S	93	88
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
U.S. ARMY GARRISONBLDG. 180 (F	FORT SHERIDAN	1/8 - 1/4NNE	B6	12
EXXON MOBIL OIL CORPORATION ST	1000 SHERIDAN AVENUE	1/8 - 1/4S	D12	36
BUILDING 55	15 CARRIAGE LANE	1/4 - 1/2NNW	E15	39
AMERICAN SYSTEMS	532 SHERIDAN RD	1/4 - 1/2S	F17	40
CONSTRUCTION SITE	507-509 SHERIDAN ROAD	1/4 - 1/2S	F23	44
SHERIDAN ARMY RESERVE COMPLEX	3155 BLACKHAWK AVE.	1/4 - 1/2NNE	H36	56
ANGELO FABBRI & SONS INC	331 BURCHELL AVE	1/4 - 1/2SW	I38	57
BUILDING 140	25 RONAN ROAD	1/4 - 1/2N	K46	61
MODERN FABRICATORS	157 BRADLEY RD	1/2 - 1 NNE	N63	71
PROFILE GEAR CORP	105 BRADLEY RD	1/2 - 1 NNE	N64	71
HIGHLAND PARK MEDICAL OFFICE	396 TEMPLE	1/2 - 1 SSE	O66	72
VIZ CHARGER SERVICE	20 PRAIRIE AVE	1/2 - 1 S	P74	76
WAYNE THOMAS SCHOOL	2939 SUMMIT AVE	1/2 - 1 WSW	R79	79
WAYNE THOMAS SCHOOL	2939 SEMMIT AVE	1/2 - 1 WSW	R80	79
HIGHLAND PARK PUBLIC WORKS	1150 HALFDAY RD	1 - 2 SW	T87	83

SRP: Illinois Environmental Protection Agency, Site Remediation Program Database

A review of the SRP list, as provided by EDR, and dated 05/12/2005 has revealed that there are 5 SRP sites within approximately 1.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
ZEIT CLEANERS	306 WAUKEGAN AVENUE	1/2 - 1 SSE	M60	69
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
FT. SHERIDAN LANDFILLS #3 & #4	351 RONAN ROAD	1/4 - 1/2NNW	34	55
MOBIL OIL CORPORATION, 05-BAY	2580 SKOKIE VALLEY ROAD	1 - 2 WSW	X103	97
MOBIL OIL CORPORATION #BB9	1333 HALF DAY ROAD	1 - 2 WSW	107	100
LEXUS OF HIGHLAND PARK	3040 SKOKIE VALLEY	1 - 2 W	109	101

CAT: Illinois Category List.

A review of the CAT list, as provided by EDR, and dated 06/01/1997 has revealed that there is 1 CAT site within approximately 2 miles of the target property.

EXECUTIVE SUMMARY

Lower Elevation	Address	Dist / Dir	Map ID	Page
FORT SHERIDAN		1/2 - 1 NNE	57	67

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CICS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 04/11/2005 has revealed that there are 33 FINDS sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Dist / Dir	Map ID	Page
GREEN CLEANERS	754 SHERIDAN RD	0 - 1/8 WSW	A1	6
22 CLEANERS	848 SHERIDAN RD	1/8 - 1/4 WNW	8	34
SUN CLEANERS	108 WASHINGTON	1/8 - 1/4 SW	C10	35
WAYNES LAKE SHORE CLEANERS INC	454 SHERIDAN RD	1/4 - 1/2 S	G27	49
AMIDEI ARTHUR	433 SHERIDAN RD	1/4 - 1/2 S	G30	52
HECKYS BARBECUE	412 SHERIDAN ROAD	1/4 - 1/2 S	G35	56
PALMERI, BOB	342 GREENBAY RD	1/4 - 1/2 S	L47	61
CLARK #1507	341 WAUKEGAN AVE	1/4 - 1/2 SSE	M52	65
WAYNES CLEANERS	337 WAUKEGAN	1/2 - 1 SSE	M54	66
WAYNE CLEANERS	337 WAUKEGAN	1/2 - 1 SSE	M55	66
HIGHWOOD, CITY OF	126-132 HIGHWOOD AVE	1/2 - 1 S	58	68
ZEIT CLEANERS	306 WAUKEGAN AVE	1/2 - 1 SSE	M61	69
KIPPS CLEANER INCORPORATED	2652 WAUKEGAN AVE	1/2 - 1 SSE	68	73
MAZZOCCO, MRS A TRUSTEE	214 GREEN BAY RD	1/2 - 1 S	P71	75
POPS HIGHWOOD	214 GREEN BAY ROAD	1/2 - 1 S	P72	75
OAK TERRACE SCHOOL	240 PRAIRIE AVE	1/2 - 1 SSW	Q76	78
HIGHWOOD HIGHLAND PARK SCHOOL	240 PRAIRIE AVE	1/2 - 1 SSW	Q77	79
WESTERN HIGHLAND LLC	3556 WESTERN AVE	1/2 - 1 NW	78	79
NORTH SHORE MEMORIAL USAR	401 ANDERSON RD	1/2 - 1 NW	84	81
Lower Elevation	Address	Dist / Dir	Map ID	Page
FORT SHERIDAN NAVAL PROPERTY	FORT SHERIDAN NAVAL PRO	1/8 - 1/4 NNE	B3	6
US ARMY FORT SHERIDAN	BLDG 119	1/8 - 1/4 NNE	B5	8
FORT SHERIDAN-FOURTH US ARMY	BLDG 48 G C/O SHERIDAN	1/8 - 1/4 NNE	B7	34
EXXON MOBIL OIL CORPORATION ST	1000 SHERIDAN AVENUE	1/8 - 1/4 S	D12	36
AMERICAN SYSTEMS	532 SHERIDAN RD	1/4 - 1/2 S	F19	43
SKOKIE VALLEY LAUNDRY AND DRY	514 SHERIDAN RD	1/4 - 1/2 S	F21	43
FORSOM BRAC DIVISION	PATTEN ROAD & 9TH ST	1/4 - 1/2 ESE	26	48
FABBRI REALTY	331 BURCHELL AVE	1/4 - 1/2 SW	I39	58
FABBRI MASONARY INC	331 BURCHELL AVE	1/4 - 1/2 SW	I40	58
FORTUNATO BUILDERS	25 RONAN RD	1/4 - 1/2 N	K44	60
HIGHLAND PARK MEDICAL CENTER	396 TEMPLE	1/2 - 1 SSE	O65	72
ROCKS ANN TRUCKING INC	333 HIGHWOOD AVE	1/2 - 1 SSW	67	72
NORTHWOODS JR HIGH SCHOOL	945 NORTH AVE	1/2 - 1 WSW	S82	81

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
JACOBS HOMES INC	2551 AUGUSTA WAY	1/2 - 1 SW	83	81

Federal Lands: Consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, and dated 10/01/2003 has revealed that there is 1 DOD site within approximately 2 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
FORT SHERIDAN (CLOSED)		1/8 - 1/4 E	0	6

STATE OR LOCAL ASTM SUPPLEMENTAL

NIPC: NIPC is an inventory of active and inactive solid waste disposal sites, based on state, local government and historical archive data. Included are numerous sites that previously had never been identified largely because, prior to 1971, there was no obligation to register such sites. The data come from the Northeastern Illinois Planning Commission's Solid Waste Landfill Inventory.

A review of the IL NIPC list, as provided by EDR, has revealed that there is 1 IL NIPC site within approximately 1.5 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
HIGHLAND PARK MUNICIPAL		1 - 2 SW	95	89

DRYCLEANERS: Any business interested in operating a drycleaning facility in Illinois needs to apply for a license through the Illinois Drycleaner Environmental Response trust Fund.

A review of the DRYCLEANERS list, as provided by EDR, and dated 03/01/2005 has revealed that there are 3 DRYCLEANERS sites within approximately 1.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
GREEN CLEANERS	754 SHERIDAN ROAD	0 - 1/8 WSW	A2	6
SUN CLEANERS	108 WASHINGTON AVENUE	1/8 - 1/4 SW	C11	36

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
SKOKIE VALLEY LAUNDRY & CLEANE	514 SHERIDAN ROAD	1/4 - 1/2 S	F22	44

BROWNFIELDS DATABASES

SRP: Illinois Environmental Protection Agency, Site Remediation Program Database

A review of the SRP list, as provided by EDR, and dated 05/12/2005 has revealed that there are 5 SRP

EXECUTIVE SUMMARY

sites within approximately 1.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
ZEIT CLEANERS	306 WAUKEGAN AVENUE	1/2 - 1 SSE	M60	69
<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
FT. SHERIDAN LANDFILLS #3 & #4	351 RONAN ROAD	1/4 - 1/2NNW	34	55
MOBIL OIL CORPORATION, 05-BAY	2580 SKOKIE VALLEY ROAD	1 - 2 WSW	X103	97
MOBIL OIL CORPORATION #BB9	1333 HALF DAY ROAD	1 - 2 WSW	107	100
LEXUS OF HIGHLAND PARK	3040 SKOKIE VALLEY	1 - 2 W	109	101

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
FT. SHERIDAN	FTTS INSP
WALTON MARCH INC.	FTTS INSP
HIGHLAND PARK LANDFILL	CERC-NFRAP
HYLAND CLEANERS	DRYCLEANERS
TOWN OF FT. SHERIDAN CO.	LUST
U.S. ARMY*	LUST
U.S. ARMY	LUST
U.S. ARMY	LUST
SHELL OIL COMPANY	RCRA-SQG, FINDS, LUST
JOHN D. & CATHERINE T. MCARTHUR FO	LUST
EXXON MOBIL CORP.	LUST
WAGEMAN OIL CO.	LUST
TRUE GREEN	LUST
CHEMLAWN	LUST
HICKS, WENDY	LUST
LAKE FOREST OASIS-WEST (LAKE FOREST	LUST
MOBIL OIL CORP. (LAKE FOREST EAST)	LUST
BUILDING 80	UST
GLADER & TAZZIOLI INC	UST
PENSKE AUTO CENTER	RCRA-SQG, FINDS
MIDWEST YOUNG ARTISTS	RCRA-SQG, FINDS
HIGHWOOD WATER FILTRATION PLT	RCRA-SQG
COLONIAL SERVICES	RCRA-SQG, FINDS
NATIONWIDE TECHNOLOGIES	RCRA-SQG, FINDS
COM ED	RCRA-LQG
FORT SHERIDAN RESURFACE RD	FINDS
DEPT OF NAVY ENVIR DEPT	FINDS
FORT SHERIDAN NAVY PROP	FINDS
FT SHERIDAN LANDFILLS 3&4	FINDS
LAKE FOREST HOSPITAL	MLTS
MOBIL OIL CORPORATION, H3E	SRP

OVERVIEW MAP - 01473503.1r - MACTEC, Inc.



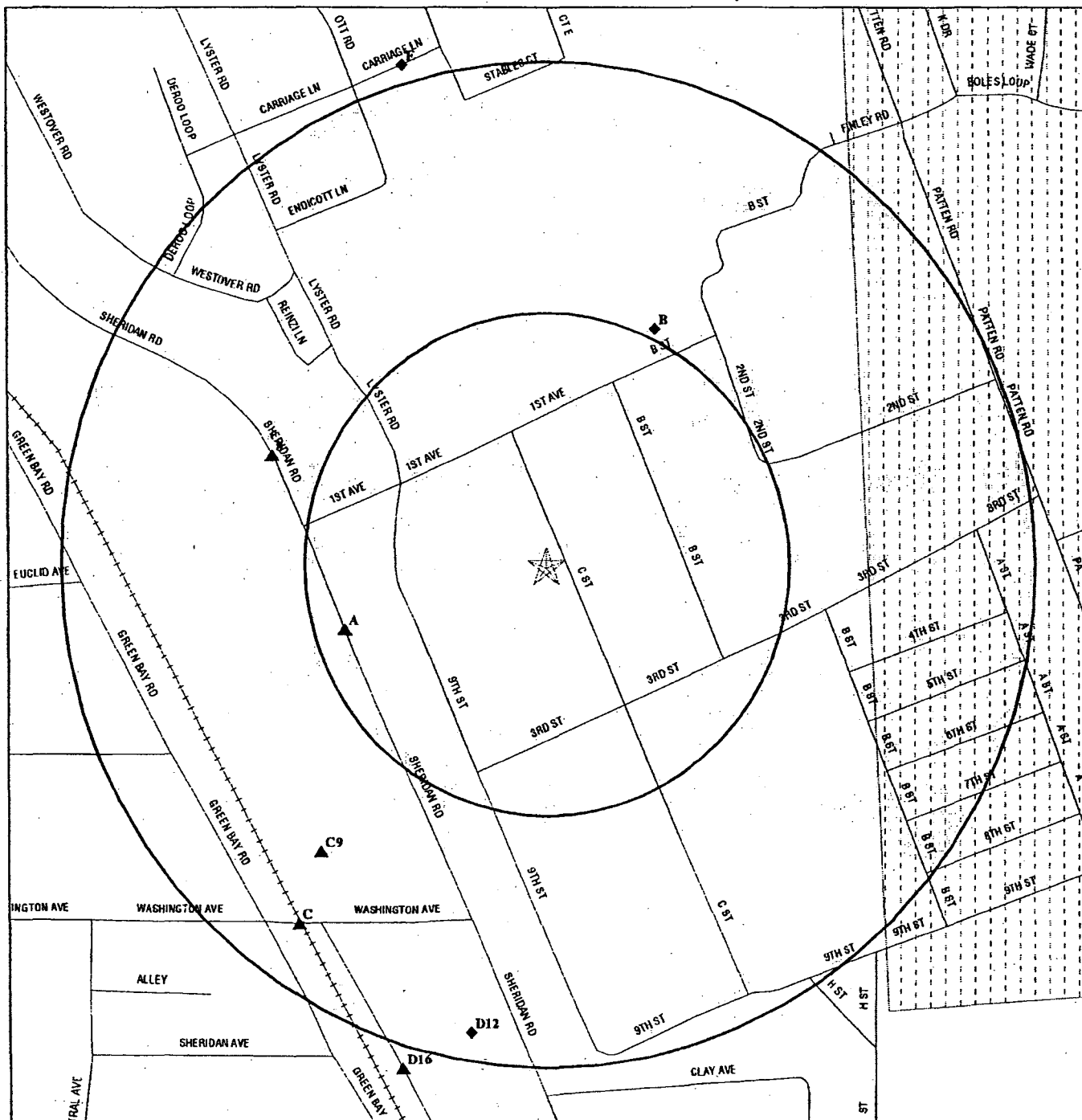
- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- ▨ National Priority List Sites
- ▨ Landfill Sites
- ▨ Dept. Defense Sites
- ▨ Indian Reservations BIA
- Power transmission lines
- Oil & Gas pipelines
- ▨ 100-year flood zone
- ▨ 500-year flood zone
- ▨ Federal Wetlands



TARGET PROPERTY: Navy Property at Fort Sheridan
ADDRESS: East of Sheridan Road
CITY/STATE/ZIP: Highland Park IL 60037
LAT/LONG: 42.2096 / 87.8108

CUSTOMER: MACTEC, Inc.
CONTACT: Carmen Yung
INQUIRY #: 01473503.1r
DATE: July 25, 2005 3:41 pm

DETAIL MAP - 01473503.1r - MACTEC, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites
- Dept. Defense Sites

- Indian Reservations BIA
- Oil & Gas pipelines
- 100-year flood zone
- 500-year flood zone

TARGET PROPERTY: Navy Property at Fort Sheridan
 ADDRESS: East of Sheridan Road
 CITY/STATE/ZIP: Highland Park IL 60037
 LAT/LONG: 42.2096 / 87.8108

CUSTOMER: MACTEC, Inc.
 CONTACT: Carmen Yung
 INQUIRY #: 01473503.1r
 DATE: July 25, 2005 3:41 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
<u>FEDERAL ASTM STANDARD</u>								
NPL		2.000	0	0	0	0	0	0
Proposed NPL		2.000	0	0	0	0	0	0
CERCLIS		1.500	0	1	0	0	0	1
CERC-NFRAP		1.250	0	0	0	0	0	0
CORRACTS		2.000	0	1	0	0	0	1
RCRA TSD		1.500	0	0	0	0	0	0
RCRA Lg. Quan. Gen.		1.250	0	1	2	0	0	3
RCRA Sm. Quan. Gen.		1.250	0	4	2	5	2	13
ERNS		1.000	0	0	2	1	NR	3
<u>STATE ASTM STANDARD</u>								
State Haz. Waste		2.000	0	0	0	0	0	0
State Landfill		1.500	0	0	0	0	1	1
LUST		1.500	0	1	12	6	16	35
UST		1.250	0	3	13	9	3	28
SRP		1.500	0	0	1	1	3	5
IMPDMENT		1.500	0	0	0	0	0	0
CAT		2.000	0	0	0	1	0	1
<u>FEDERAL ASTM SUPPLEMENTAL</u>								
CONSENT		2.000	0	0	0	0	0	0
ROD		2.000	0	0	0	0	0	0
Delisted NPL		2.000	0	0	0	0	0	0
FINDS		1.000	1	6	11	15	NR	33
HMIRS		1.000	0	0	0	0	NR	0
MLTS		1.000	0	0	0	0	NR	0
MINES		1.250	0	0	0	0	0	0
NPL Liens		1.000	0	0	0	0	NR	0
PADS		1.000	0	0	0	0	NR	0
DOD		2.000	0	1	0	0	0	1
INDIAN RESERV		2.000	0	0	0	0	0	0
UMTRA		1.500	0	0	0	0	0	0
US ENG CONTROLS		1.500	0	0	0	0	0	0
ODI		1.500	0	0	0	0	0	0
FUDS		2.000	0	0	0	0	0	0
RAATS		1.000	0	0	0	0	NR	0
TRIS		1.000	0	0	0	0	NR	0
TSCA		1.000	0	0	0	0	NR	0
SSTS		1.000	0	0	0	0	NR	0
FTTS		1.000	0	0	0	0	NR	0
<u>STATE OR LOCAL ASTM SUPPLEMENTAL</u>								
IL NIPC		1.500	0	0	0	0	1	1

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
DRYCLEANERS		1.250	1	1	1	0	0	3
ENG CONTROLS		1.500	0	0	0	0	0	0
<u>EDR PROPRIETARY HISTORICAL DATABASES</u>								
Coal Gas		2.000	0	0	0	0	0	0
<u>BROWNFIELDS DATABASES</u>								
US BROWNFIELDS		1.500	0	0	0	0	0	0
US INST CONTROL		1.500	0	0	0	0	0	0
Inst Control		1.500	0	0	0	0	0	0
BROWNFIELDS		1.500	0	0	0	0	0	0
SRP		1.500	0	0	1	1	3	5

NOTES:

AQUIFLOW - see EDR Physical Setting Source Addendum

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

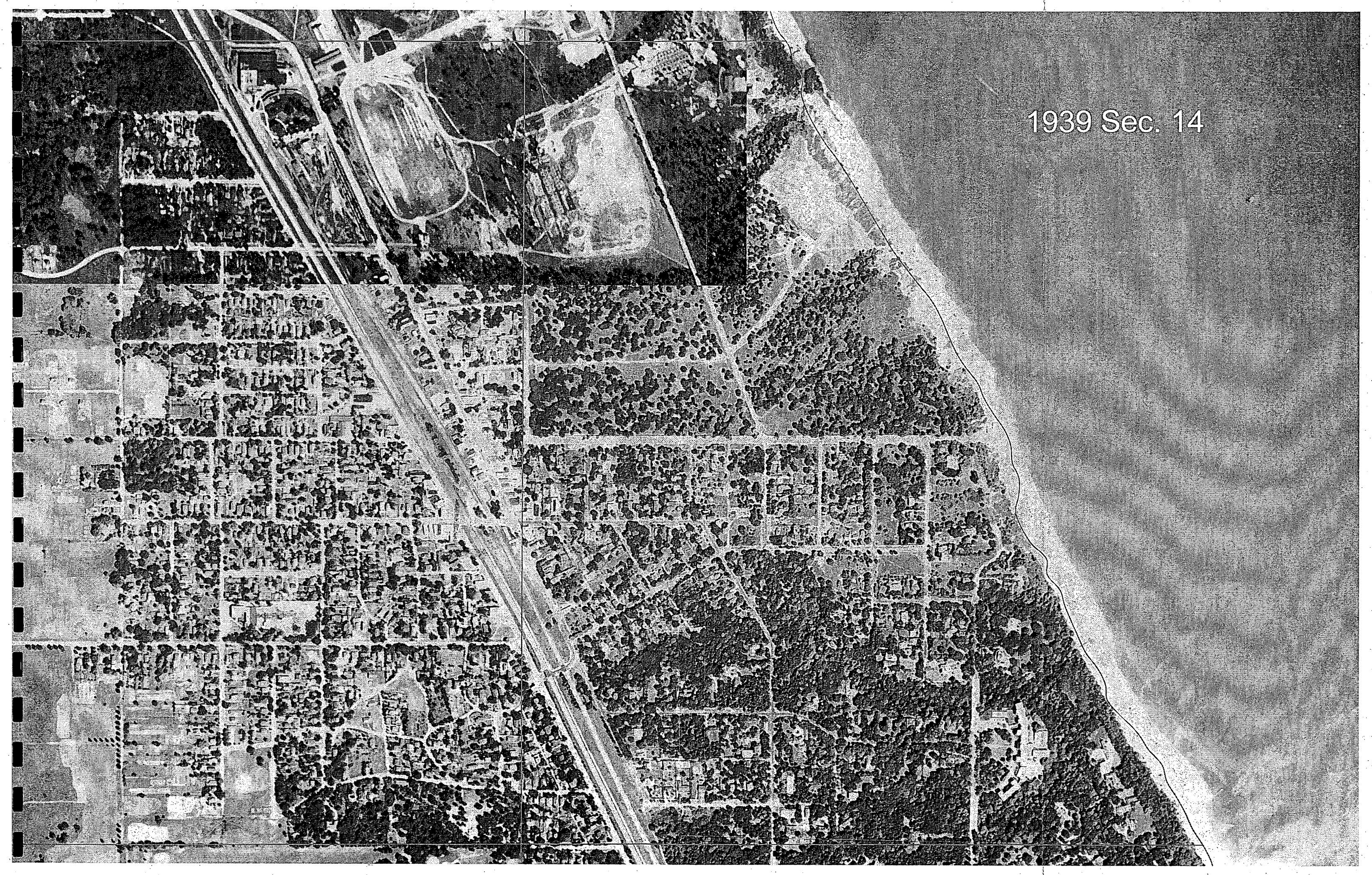
APPENDIX E

Historical Aerial Photographs

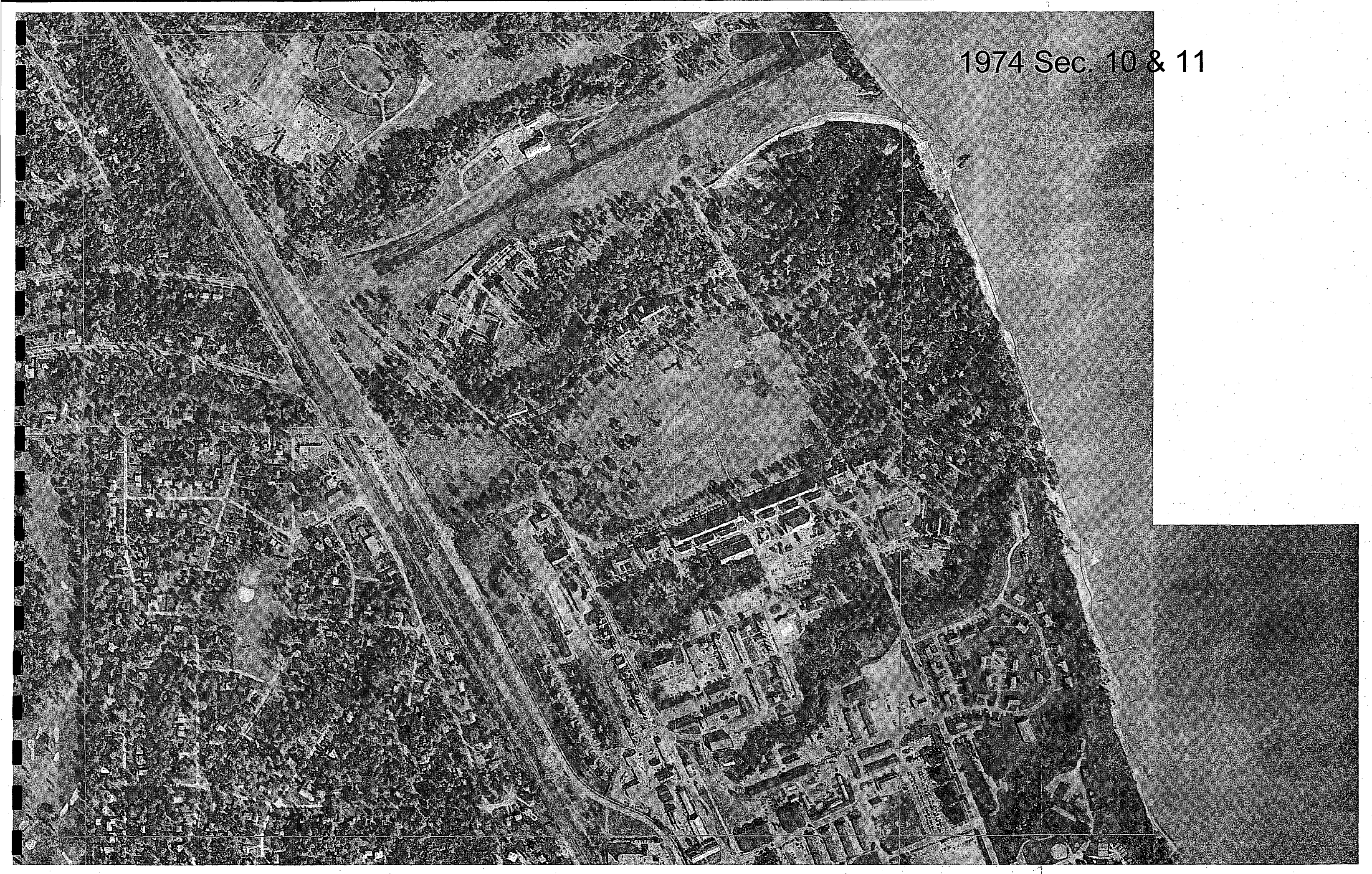
1939 Sec. 10 & 11



1939 Sec. 14



1974 Sec. 10 & 11



1974 Sec. 14



1993 Sec. 10 & 11



1993 Sec. 14



2000 Sec. 10 & 11



2000 Sec. 14



2004 Sec. 10&11



2004 Sec. 14



APPENDIX F

Summary of Environmental Document Review

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
General	HRA Chronology of Events	1989 to 1995	Various	Mostly internal DOD/Navy reports, notes, meeting minutes, faxes, hand-written notes, etc. Also, power-point presentation slides.
General	Closure Plans/Briefings/Point Papers	May 1993	Various	Mostly internal DOD/Navy documents regarding base realignment.
General	BRAC Cleanup Plan – Version 1	April 1994	Earth Tech	Report on BRAC site cleanup – off Navy property.
General	Final Sampling and Analysis Plan – Background Sampling	May 1995	Environmental Science & Engineering, Inc.	Describes background groundwater and soil sampling. One of each sampling location was near the south gate at Walker Ave. Tested for VOCs, SVOCs, Pests/Herbs, TCLP metals, and cyanide.
General	Final Monitoring Well Maintenance Plan	March 1996	Environmental Science & Engineering, Inc.	Describes maintenance of monitoring wells throughout the site. Map showing locations of all monitoring wells at the time.
General	Final Background Report	May 1997	Environmental Science & Engineering, Inc.	Finalizes May 1995 background sampling report.
General	Environmental Baseline Survey, Navy Property, Fort Sheridan, Illinois	May 1, 2001	Project Resources, Inc.	Summarizes the environmental issues at the site. Indicates that 8 sites (Landfills 5, 6, & 7, Beach Firing Range, Excavation Area #8, CSA #3 (DOD Extension), CSA #4, and Wells Ravine Tributary North) that are still undergoing remediation would not be excluded from any property transfer. Also discusses other known, documented, potential, and observed environmental issues on the Navy property.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
General	Environmental Baseline Survey Update Navy Property at Fort Sheridan Highland Park, IL Final Draft	Dec. 2002	Project Resources, Inc.	Updates the EBS dated 5/21/01. Identified 36 RECs consisting of 10 petroleum sites and 26 Army IRP Sites. Also, reported on 44 small ASTs and heating oil USTs at Building 800 to 806 that were closed in-place. Mentions ACM, Radon, and LBP. Includes maps, Plat of Survey, Building Inventory and EDR.
General	Environmental Assessment for the Privatization of Family Housing	December 2004	J. M. Waller Associates, Inc.???	Describes and proposes the PPV and alternatives considered in the development of new military housing at Fort Sheridan, Glenview NAS, and Great Lakes NAVSTA. Discusses how the PPV could affect the physical, biological, and socioeconomic environments at each site. Also describes the physical, environmental, biological, demographic, energy, and gov't regulations associated with each. Document really only focuses on environmental issues at Fort Sheridan.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
USTs	LUST 45-Day Report Building 384	April 29, 1994	DOA	(1) 1,500-gal fuel oil UST removed on 11/18/93. 20 cys of contaminated soil removed. Obvious contamination in tank cavity, therefore no closure samples were collected. No free product noted.
USTs	Plan of Operation/Building 208 Remedial Actions	June 1995	Ecology Services, Inc.	Planned closure of waste oil, kerosene, and fuel oil USTs at Building 208. Map shows 7 monitoring wells around the building.
USTs	Site Characterization Report Building 208	July 1995	Ecology Services, Inc.	Report on additional soil boring and monitoring well installation. (This data also summarized in LUST Corrective Action Report, Building 208, dated March 15, 2004)
USTs	LUST 45-Day Report Building 369	August 1995	DOA	(1) 1,000-gal No. 2 fuel oil UST removed on 12/6/93. Contamination attributed to leaking pipes. 7 closure samples were collected for PNAs and BTEX; results were below TACO cleanup levels.
USTs	LUST 45-Day Report Building 377	August 1995	DOA	(1) 1,000-gal No. 2 fuel oil UST removed on 12/6/93. 165 cys of soil removed on 5/18/94 & 8 closure samples were collected for PNAs and BTEX. PNAs were above TACO cleanup levels. An additional 15 cys of soil removed on 6/14/94 and new samples were collected and no PNAs were detected.
USTs	LUST Corrective Action Report Building 377	August 1995	DOA	Provided the same information as LUST 45-Day Report Building 377.
USTs	LUST Corrective Action Report Building 384	August 1995	DOA	Total of 560 cys of soil excavated over three different phases in April, May and June 1994. Closure samples were tested for BTEX and PNAs and closure completed.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
USTs	LUST 45-Day Report Building 440	August 1995	DOA	(1) 2,000-gal No. 2 fuel oil UST removed on 11/19/93. 40 cys. of soil removed, but no closure samples were collected.
USTs	LUST Corrective Action Report Building 440	August 1995	DOA	On 4/11/94 removed additional 165 cys of soil. 8 closure samples collected for BTEX and PNAs and no BTEX nor PNAs were detected.
USTs	UST Data Validation Report – Bldgs 142, 143, 209, 368, & 494	September 1997	US Geology Services	Data Validation on UST samples at several locations.
USTs	UST Data – Bldgs 800 through 806 Volumes 1, 2, & 3	February 1998	US Geology Services	Report on the abandonment of (28) 2,000-gal No. 2 fuel oil USTs at the Buildings 800, 801, 802, 803, 804, 805, & 806
USTs	LUST 45-Day Report Building 141	May 1999	DOA	(3) 6,000-gal No. 2 fuel oil UST removed on 1/7/97. Total of 735 cys of soil removed in May 1997 and 18 closure samples were collected for BTEX and PNAs and a No Further Action determination was requested.
USTs	LUST Corrective Action Report, Building 208	Revised January 2001	Ecology Services, Inc.	Report on closure of (3) 10,000-gal gasoline, (1) 500-gal waste oil, (1) 5000-gal kerosene, and (1) 1,000-gal fuel oil USTs at Building 208. Tanks removed in 1992. Building 208 and all aboveground structures removed in 1993. Many subsequent phases of investigation and soil excavation are reported.
USTs (IR Site)	Building 208 UST Work Plan, Fort Sheridan, Illinois	September 27, 2002 (Rev. 1)	Kemron	Work Plan documenting excavation of contaminated soil associated with the Bldg 208 USTs. Summarizes previous closure sample analytical results.
USTs (IR Site)	Corrective Action Completion Report, Building 208, Fort Sheridan, Illinois	March 15, 2004	Kemron	IEPA LUST Corrective Action Completion Report for Bldg 208 USTs. Closure sample analytical results (95% Upper Confidence Limit) compared to residential properties. Requests NFR. IEPA approved NFR and copy of NFR attached. NFR recorded in Lake County (copy attached).

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
IR Sites	Draft Final Remedial Investigation/Risk Assessment Feasibility Study	June 1992	Environmental Science & Engineering, Inc.	Phase I Investigation (not Phase I ESA) at several sites off Navy Property and at Landfill #5, Bldg 378 (Acid Pit) Landfills 6 & 7, VES Area #8, CSA #4, & CSA #3. Information incorporated into Final Feasibility Study Operable Unit, May 2002
IR Sites	Final Environmental and Health Evaluation Sampling Landfill No. 7	August 1995	DOA	Evaluation of health risks associated with Landfill #7, particularly the inhalation route.
IR Sites	Gas Vent Sampling Landfill No. 7	March 1995	Environmental Science & Engineering, Inc.	Liquid sample results from gas vents installed in 1997 and 1998. Sample depths are from 30 to 65 feet from top of vents. Composited samples for iron, biological oxygen demand, total dissolved solids, arsenic, lead, and zinc.
IR Sites	Risk Communication Plan Landfill No. 7	November 1995	PRC Environmental Management, Inc.	Additional risk information associated with Landfill #7.
IR Sites	Final Focused Feasibility Study Landfills 6 & 7	July 1996	Environmental Science & Engineering, Inc.	Discusses data collected in Landfills 6 & 7 and plan for an interim and final corrective measures.
IR Sites	Phase II Remedial Investigation/Feasibility Study Operable Unit	January 1997	Science Applications International Corp	Phase II RI on many of the IR Sites on and off the Navy property including Landfills 5, 6, & 7; CSA #4; VES 3, 7, & 8; Bldgs 361, 368, & 377; the Ravines; former incinerator; & former sewage treatment plant.
IR Sites	Draft Record of Decision for Interim Action for Landfills 6 & 7	January 1997	Environmental Science & Engineering, Inc.	Summarizes history and characterization of Landfills 6 & 7. Presents comparative analysis of alternatives for interim action and also presents the selected remedial alternative including RCRA cap and leachate and landfill gas collection systems.
IR Sites	Site-Specific Safety & Health Plan - Interim Remedial Action - Landfills 6 & 7	April 1997	Stone & Webster Environmental, Inc.	Discusses health and safety measures during implementation of interim remedial actions on Landfills 6 & 7.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
IR Sites	Work Plan – Interim Remedial Action - Landfills 6 & 7	April 1997	Stone & Webster Environmental, Inc.	Describes implementation of interim remedial actions on Landfills 6 & 7.
IR Sites	Decision Document Interim Source Control - Landfills 6 & 7	April 1997	Environmental Science & Engineering, Inc.	Decision document for the interim remedial actions on Landfills 6 & 7.
IR Sites	Monthly Monitoring Report - Landfills 6 & 7	May 1997	Diversified Technology	Reporting of storm drain sampling at Landfills 6 & 7.
IR Sites	Phase II Remedial Investigation/Feasibility Study Technical Plan Addendum	June 1997	Science Applications International Corp	Updates sampling procedures for the Phase II assessment.
IR Sites	Monthly Monitoring Report - Landfills 6 & 7	June 1997	Diversified Technology	Reporting of storm drain sampling at Landfills 6 & 7.
IR Sites	Final Technical Memo for Miscellaneous Surplus Operable Units	November 1997	Environmental Science & Engineering, Inc.	Identifies possible environmental issues associated with various sites with Fort Sheridan. Those of interest include IR Sites at Buildings 368, 379, and 361; PCB transformers at Building 142; and USTs at Buildings 141, 142, 162, 205, 208, 209, 368, 369, 377, 379, 440, and 494.
IR Sites	Electromagnetic Survey Test Pit Areas - Landfills 6 & 7/Treatment Plant/Manhole SD-7	November 1997	Stone & Webster Environmental, Inc.	Electromagnetic Survey performed to clear utilities.
IR Sites	Final Non-Time Critical Removal Action Completion Report – Buildings 42, 43, and 77 and CSA #3.	June 11, 1999	IT Corporation	Reports on removal action primarily off of Navy property. A portion of the removal action in CSA #3 encroached upon Bartlett Ravine.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
IR Sites	Final Post Removal Action Risk Evaluation – Buildings 42, 43, and 77 and CSA #3 of the Operable Unit, Fort Sheridan, Illinois.	June 14, 1999	QST Environmental, Inc.	Presents risk-based screening of the samples collected following removal action primarily off of Navy property. A portion of the removal action in CSA #3 encroached upon Bartlett Ravine.
IR Sites	Final Remedial Investigation/Baseline Risk Assessment, DOD Operable Unit, Fort Sheridan, IL	July 1999	Science Applications International Corp	Presents the results of the Phase I and Phase II RI activities and BRA for 40 sites within Fort Sheridan. Summarizes the site history, investigative history, and provides descriptions of the function and the source of contamination at each site. Includes summarized analytical data tables and maps showing sample locations.
IR Sites	Final Proposed Remedial Action Plan, No Action Sites, Operable Unit	December 1999	Science Applications International Corp	Proposes no action at 20 sites in the DOD Operable Unit based on no unacceptable risk.
IR Sites	Final Phase III Remedial Investigation/Baseline Risk Assessment, DOD Operable Unit, Fort Sheridan, IL	May 2000	Science Applications International Corp	Presents the results of the Phase III RI activities and risk assessment at 10 sites and the regional sand aquifer within Fort Sheridan. The data presented in this report was considered supplemental to that of the Phase I and Phase II RI/BRA. Includes summarized analytical data tables and maps showing sample locations.
IR Sites	Preliminary Draft Design - Landfills 6 & 7	July 2000	Stone & Webster Environmental, Inc.	Preliminary design of final cover system for Landfills 6 & 7.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
IR Sites	Final Remedial Investigation/Baseline Risk Assessment Report Addendum, DOD Operable Unit, Fort Sheridan, IL	April 2001	Science Applications International Corp.	Addendum to the <i>Final Remedial Investigation/Baseline Risk Assessment, DOD Operable Unit, Fort Sheridan, IL</i> , July 1999. Includes updated sampling/remediation info on Landfill #5, Wells Ravine Western Extension, Bartlett Ravine, Van Horne Ravine, Shenck Ravine, and Excavation Area #8. Includes updated sampling/remediation info on Wells Ravine Northern Tributary, Beach Pistol/Machine Gun Range, and CSA #3, DOD Extension.
IR Sites	Various Letter Reports	November and December 2001	IT Corporation	Includes documents on Landfill 7 relating to: (1) leachate sampling from MH6000; (2) installation of a dry well to remediate leachate seep; (3) decommissioning of gas vents GV-2 through GV-4 and LF-MW-05S & LF-MW-05D.
IR Sites	Final Anti-Aircraft Artillery Ranges Site Investigation Report, Fort Sheridan, Illinois	March 2002	Harding ESE, Inc.	Investigation of former anti-aircraft artillery firing positions on and off Navy property and investigation of UXO and residual explosive-related compounds in near-shore Lake Michigan sediments and surfacewaters.
IR Sites	Final Action Memorandum, Fort Sheridan, Illinois	May 2002	Kemron	Documents proposed remedial actions at 2 sites off of Navy property and 2 sites on Navy property: CSA #4 & VES #8. Summarizes environmental conditions at each site.
IR Sites	Final Feasibility Study DOD Operable Unit, Fort Sheridan, IL	May 2002	Science Applications International Corp	Compiles Phase I, Phase II, and Phase III investigation information and results for the following sites: Landfills #5, 6, & 7; Bldg 378 (Acid Pit); VES #8; CSA #3; and CSA #4. Also, discusses feasibility of remedial action at each site.
IR Sites	Final Removal Action Work Plan, Fort Sheridan, Illinois	May 2002	Kemron	Documents proposed remedial actions at 2 sites off of Navy property and 2 sites on Navy property: CSA #4 & VES #8. Summarizes environmental conditions at each site. Indicates that most of the soil to be excavated will be used as fill as part of the Landfills 6 & 7 RCRA cap regarding.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
IR Sites	Decision Document for the No Action Study Areas, DOD Operable Unit, Fort Sheridan, IL	June 2002	Science Applications International Corp	Presents justification for no further action at 23 sites within Fort Sheridan. Explains the factual and legal basis for the no action determination in accordance with CERCLA as amended by SARA and NCP.
IR Sites	Letter Report Former Ravine Waste Extent Determination Landfill #7, Fort Sheridan, Illinois	June 2002	IT Corporation	Discusses investigation of landfill waste along western edge of Landfill #7. 14 soil samples collected from 8 soil borings were advanced along the former ravine and analyzed for metals, VOCs, SVOCs, Pests/Herbs, PCBs, & Explosives. No evidence of extensive waste observed. Noted exceedances of TACO residential criteria for metals and SVOCs.
IR Sites	Remedial Action Work Plan, Landfills 6 and 7	June 5, 2002	Kemron	Documents construction methods and procedures during remedial actions at Landfills 6 & 7. Remedial actions were to consist of RCRA caps with associated storm water and erosion control systems, active leachate and gas collection systems, and long-term O&M of the above. In addition, the remedial actions were to include excavation and consolidation within Landfills 6 & 7 of waste material from Wells Ravine Tributary North and CSA #4 and VES #8. Planned excavation at 2 sites off of Navy property were also mentioned as borrow areas for Landfill 6 & 7 regrading.
IR Sites	Proposed Plan Coal Storage Area 3 and Landfill 5, Fort Sheridan, Illinois	February 18, 2003	Kemron	Documents proposed remedial actions at CSA #3 & Landfill 5. Summarizes environmental conditions at each site.
IR Sites	Groundwater Monitoring Plan Landfills 6 and 7, Fort Sheridan, Illinois	July 28, 2003	Kemron	Describes installation of new monitoring wells around the landfills and long-term monitoring of groundwater from new and existing wells. Also, describes monitoring of the leachate collection system.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
IR Sites	Final Remedial Investigation/Baseline Risk Assessment Report, DOD Operable Unit, Fort Sheridan, IL	September 2003	Science Applications International Corp	Update to the <i>Final Remedial Investigation/Baseline Risk Assessment, DOD Operable Unit, Fort Sheridan, IL</i> , July 1999.
IR Sites	Remedial Action Work Plan Landfill 5, Fort Sheridan, Illinois	July 2004	Kemron	Additional discussion of remedial actions at Landfill 5.
IR Sites	Coal Storage Area 3 Work Plan, Fort Sheridan, Illinois	July 2004	Kemron	Additional discussion of remedial actions at CSA #3.
IR Sites	Decision Document Coal Storage Area 3 and Landfill 5, Fort Sheridan, Illinois	Draft November 2003, Final October 11, 2004	Kemron	Decision documents for remedial actions at CSA #3 & Landfill 5. Summarizes environmental conditions at each site.
IR Sites	Remedial Design Document Coal Storage Area 3 Fort Sheridan, Illinois	September 2004	Kemron	Details of remedial actions at CSA #3.
IR Sites	Remedial Design Document Landfill 5 Fort Sheridan, Illinois	September 2004	Kemron	Details of remedial actions at Landfill 5.

**DOCUMENT REVIEW SUMMARY
PHASE I ENVIRONMENTAL SITE ASSESSMENT
FORT SHERIDAN**

Subject	Title	Date	Prepared By	Summary
PCBs	PCB Transformer Sampling Report	June 1992	Environmental Science & Engineering, Inc.	110 transformers sampled. 9 tested positive for PCBs: 7 pad-mounted and 2 pole-mounted. These 9 are outside of the Navy property. All those on Navy property reported as negative for PCBs.
Subject	Title	Date	Prepared By	Summary
UXO	UXO Archive Search Report Final Removal Volumes I, II, & III	March 1996 (Revised March 1997)		Describes research involved in UXO areas within Ft. Sheridan. Maps showing potential locations of UXO including Navy property. Apparent removal action on Navy property.

Notes:

DOA = Department of Army
DOD = Department of Defense
Cys = Cubic yards
VES = Vehicle Equipment Storage Area
CSA = Coal Storage Area
UXO = Unexploded Ordnance
PCBs = Polychlorinated Biphenyls
VOCs = Volatile Organic Compounds
SVOCs = Semi-Volatile Organic Compounds
Pests/Herbs = Pesticides/Herbicides
TCLP = Toxicity Characteristic Leaching Procedure
RI = Remedial Investigation
RCRA = Resource Conservation and Recovery Act

APPENDIX G

Freedom of Information Act Requests



ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

1021 NORTH GRAND AVENUE EAST, P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276, 217-782-3397
JAMES R. THOMPSON CENTER, 100 WEST RANDOLPH, SUITE 11-300, CHICAGO, IL 60601, 312-814-6026

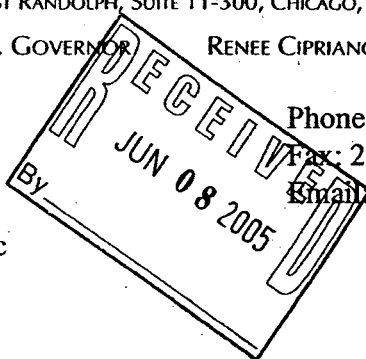
ROD R. BLAGOJEVICH, GOVERNOR RENEE CIPRIANO, DIRECTOR

June 2, 2005

Phone: 217/782-9878

Fax: 217/782-9290

Email: foia@epa.state.il.us



MACTEC Engineering & Consulting Inc
Attn: Craig T. Cabrera
5440 N Cumberland Av., Ste. 250
Chicago, IL 60656 -

Re: Freedom of Information Act Request

Dear Sir/Madam:

This letter is in response to your Freedom of Information Act (FOIA) (5 ILCS 140/1 et seq.) request dated May 24, 2005 and received by the FOIA sector, Bureau of Land (BOL), at the Illinois Environmental Protection Agency (Illinois EPA) on May 24, 2006.

Following a search, the Illinois EPA determined there was no information in the Bureau of Land's records for the property(s) listed below.

Site Name	Site Address	Site City
FORT SHERIDAN	NONE GIVEN	HIGHLAND PARK

Sincerely,

Jan Ogden, FOIA Coordinator
Records Management Unit
Bureau of Land

ID: 36207

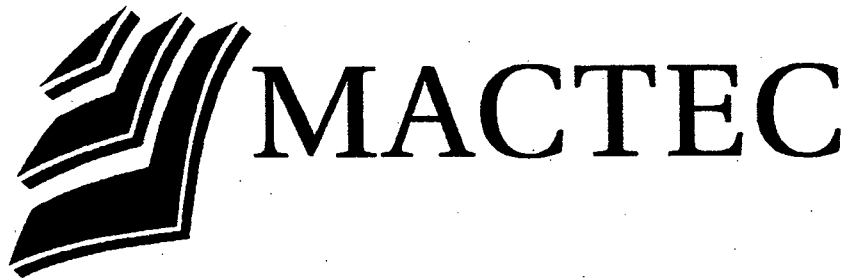
ROCKFORD - 4302 North Main Street, Rockford, IL 61103 - (815) 987-7760 • DES PLAINES - 9511 W. Harrison St., Des Plaines, IL 60016 - (847) 294-4000
ELGIN - 595 South State, Elgin, IL 60123 - (847) 608-3131 • PEORIA - 5415 N. University St., Peoria, IL 61614 - (309) 693-5463
BUREAU OF LAND - PEORIA - 7620 N. University St., Peoria, IL 61614 - (309) 693-5462 • CHAMPAIGN - 2125 South First Street, Champaign, IL 61820 - (217) 278-5800
SPRINGFIELD - 4500 S. Sixth Street Rd., Springfield, IL 62706 - (217) 786-6892 • COLLINSVILLE - 2009 Mall Street, Collinsville, IL 62234 - (618) 346-5120
MARION - 2309 W. Main St., Suite 116, Marion, IL 62959 - (618) 993-7200

GOOD NEWS FROM THE ILLINOIS EPA **CONCERNING FOIA REQUESTS!**

We are pleased to announce that there is a new option for submitting information requests under the Freedom of Information Act (FOIA). The Illinois EPA has implemented a new Internet-based FOIA request form. Although US mail and fax requests are still accepted, you will find that this new FOIA option is the most efficient and effective way for you to send your request to the Agency. We encourage you to try this new option for any future FOIA request by using the link provided below.

<http://www.epa.state.il.us/foia>

Thank you.



May 24, 2005

Ms. Sharyn Haney
IEPA Bureau of Water #15
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Phone: 217/785-9461 Fax: 217/782-9891

**RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

Dear Ms. Haney:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the above referenced site. If the Illinois Environmental Protection Agency has documents pertaining to this property, please inform MACTEC of the associated reproduction costs prior to releasing this information to MACTEC.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Craig T. Cabrera
Senior Project Scientist
MACTEC Engineering and Consulting, Inc.
5440 North Cumberland Avenue, Suite 250
Chicago, Illinois 60656



May 24, 2005

Ms. Betty Ascher
IEPA Bureau of Air #11
1340 North Ninth Street
P.O. Box 19506
Springfield, Illinois 62794-9506
Phone: 217/782-2113 Fax: 217/524-5023

**RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

Dear Ms. Ascher:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the above referenced site. If the Illinois Environmental Protection Agency has documents pertaining to this property, please inform MACTEC of the associated reproduction costs prior to releasing this information to MACTEC.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Craig T. Cabrera
Senior Project Scientist
MACTEC Engineering and Consulting, Inc.
5440 North Cumberland Avenue, Suite 250
Chicago, Illinois 60656



May 24, 2005

Ms. Jan Ogden
Bureau of Land #24
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Phone: 217/782-9878 Fax: 217/782-9290

**RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

Dear Ms.Ogden:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the above referenced property. If the Illinois Environmental Protection Agency has documents pertaining to this property, please inform MACTEC of the associated reproduction costs prior to releasing this information to MACTEC.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Craig T. Cabrera
Senior Project Scientist
MACTEC Engineering and Consulting, Inc.
5440 North Cumberland Avenue, Suite 250
Chicago, Illinois 60656



July 29, 2005

Regional Freedom of Information Officer
U.S. EPA Region V
77 West Jackson Boulevard
Chicago, Illinois 60604
Via Facsimile 312-886-1515

**RE: Freedom of Information Request for
Navy Property at Fort Sheridan
Highland Park, Illinois**

Dear Sir/Madam:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the following buildings/facilities located at the above referenced property:

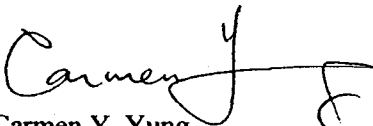
- US Army Fort Sheridan, Building 119; and
- Ft. Sheridan Landfills #3 & #4, 351 Ronan Road, Fort Sheridan, IL.

If the US Environmental Protection Agency has documents pertaining to these facilities, please inform Ms. Carmen Yung of MACTEC at 630-664-4372 of the associated reproduction costs prior to releasing this information to MACTEC.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.


Carmen Y. Yung
Senior Environmental Scientist

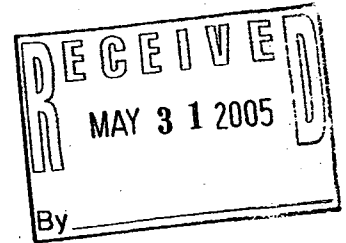


ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

P.O. Box 19506, SPRINGFIELD, ILLINOIS 62794-9506

RENEE CIPRIANO, DIRECTOR

(217) 782-2113



May 26, 2005

MACTEC

Attn: Craig Cabrera

5440 N. Cumberland Ave, Suite 250

Chicago, IL 60656

Re: FOIA Request Received 05/26/2005

Dear Mr. Cabrera:

The IEPA Bureau of Air does not have any files or permits for the facility(s) listed below.

Fort Sheridan Highland Park

If you have any questions please feel free to contact the FOIA Coordinator at the number indicated above.

Sincerely,

Donald E. Sutton, P.E.

Manager, Permit Section

Division of Air Pollution Control

RECEIVED
MAY 27 2005



MACTEC

FOIA
ck #567
Sa

May 24, 2005

Ms. Denise Carty
Freedom of Information Center
Office of the Illinois State Fire Marshal
1035 Stevenson Road
Springfield, Illinois 62703-4259

NOTHING FOUND
AT ADDRESS GIVEN

RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E

Dear Ms. Carty:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the above referenced site. If the Office of the State Fire Marshal has documents pertaining to this property, please provide the information to MACTEC.

Enclose please find a check for \$5.00 to cover facility fees.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Craig T. Cabrera
Senior Project Scientist
MACTEC Engineering and Consulting, Inc.
5440 North Cumberland Avenue, Suite 250
Chicago, Illinois 60656



May 24, 2005

Ms. Denise Carty
Freedom of Information Center
Office of the Illinois State Fire Marshal
1035 Stevenson Road
Springfield, Illinois 62703-4259

**RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

Dear Ms. Carty:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the above referenced site. If the Office of the State Fire Marshal has documents pertaining to this property, please provide the information to MACTEC.

Enclose please find a check for \$5.00 to cover facility fees.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Craig T. Cabrera
Senior Project Scientist
MACTEC Engineering and Consulting, Inc.
5440 North Cumberland Avenue, Suite 250
Chicago, Illinois 60656



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

August 01, 2005

Carmen Yung
MACTEC
1200 Jorie Boulevard
Suite 230
Oak Brook, IL, 60523
United States

RE: Freedom of Information Act (FOIA), 5 U.S.C. 552
Request #: 05-RIN-01592-05
Description: Navy Property at Fort Sheridan located in Highland
Park, Illinois

Dear Ms. Yung,

Thank you for your FOIA request dated July 29, 2005 and received in this office on August 01, 2005, for records related to:

Navy Property at Fort Sheridan located in Highland Park, Illinois

The Agency has twenty (20) working days to respond to your request, except when you have agreed to an alternate due date or unusual circumstances exist that would require an extension of time under 5 U.S.C. 552 (a)(6)(B). Please be advised that in accordance with EPA's revised FOIA regulations (40 CFR 2.100, et. Seq.), effective November 5, 2002, the Agency's fees for processing requests have changed. The new fee schedule is as follows:

- Clerical staff time billed at \$4.00 per 15 minutes of search and/or review
- Professional staff time billed at \$7.00 per 15 minutes of search and/or review
- Managers' time billed at \$10.25 per 15 minutes of search and/or review
- No fee will be charged for services at or below \$14.00
- Assurance of payment of fees above \$25.00 will be obtained from the requester before commencing any work
- Advance payment of fees above \$250 may be required by the Agency before commencing any work

We hope to respond to you soon. In the interim, please contact us if you have any questions about your request. Please cite your FOIA request number in all communications.

Information Management Branch
Freedom of Information Officer (MI-9J)
Office: (312) 886-6686
Fax: (312) 886-1515



August 3, 2005

Ms. Jan Ogden
Bureau of Land #24
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

**RE: Freedom of Information Request for
US Army Building 80, 88 and 180
Fort Sheridan, IL**

Dear Ms.Ogden:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the following LUST incidents reported at the US Army facility in Fort Sheridan. If the Illinois Environmental Protection Agency has documents pertaining to this property, please inform MACTEC of the associated reproduction costs prior to releasing this information to MACTEC.

- LUST Incident 982648, Army Building 80;
- LUST Incident 981392, Army Building 88; and
- LUST Incident 20010520, Army Building 180.

Thank you for your assistance in this matter.

Sincerely,

MACTEC ENGINEERING AND CONSULTING, INC.

A handwritten signature in cursive script, appearing to read "Carmen Y. Yung".

Carmen Y. Yung
Senior Environmental Scientist

CTC/ccv



July 29, 2005

Ms. Jan Ogden
Bureau of Land #24
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
Via Facsimile 217-782-9290

**RE: Freedom of Information Request for
Navy Property at Fort Sheridan
Highland Park, Illinois**

Dear Ms. Ogden:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests information regarding the following building located at the above referenced property:

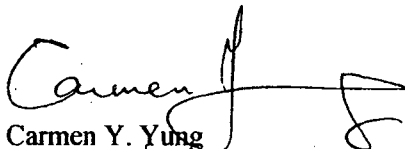
- US Army Fort Sheridan, Building 141, LUST Incident # 970273.

If the Illinois Environmental Protection Agency has documents pertaining to this facility, please inform Ms. Carmen Yung of MACTEC at 630-664-4372 of the associated reproduction costs prior to releasing this information to MACTEC.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.


Carmen Y. Yung
Senior Environmental Scientist



July 21, 2005

Ms. Anne Haaker, Deputy State Historic Preservation Officer
Preservation Services
#1 Old State Capitol Plaza
Springfield, Illinois 62701-1787
Phone: 217-785-1507

**RE: Request for Historical Search
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

Dear Ms. Haacker:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests a search of the SHPO database to determine if the Navy Property at Fort Sheridan site is listed or has applied to be listed. The Navy property is located in Highland Park, Lake County, Illinois.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

A handwritten signature in cursive script, appearing to read "Carmen Y. Yung".

Carmen Y. Yung
Senior Environmental Scientist
MACTEC Engineering and Consulting, Inc.
1200 Jorie Boulevard, Suite 230
Oak Brook, Illinois 60523



July 21, 2005

US Fish and Wildlife Service
4469 48th Avenue Court
Rock Island, Illinois 61201
Phone: 309-793-5800 Fax: 309-793-5804

**RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

Dear Field Supervisor Richard Nelson:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests a search of the US Fish and Wildlife Service database for the presence of endangered and threatened species, for the above referenced property and immediately surrounding area. The site is Navy Property at Fort Sheridan in Highland Park, Illinois.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.

Carmen Y. Yung
Senior Environmental Scientist
MACTEC Engineering and Consulting, Inc.
1200 Jorie Boulevard, Suite 230
Oak Brook, Illinois 60523



July 21, 2005

Illinois Department of Natural Resources
Division of Natural Resource Review & Coordination
524 South Second Street
Springfield, Illinois 62701-1787

**RE: Freedom of Information Request for
Fort Sheridan, Highland Park, Illinois
Sections 10, 11, and 14 Township 43N, Range 12E**

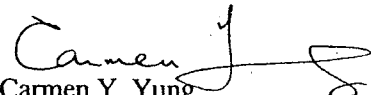
To Whom It May Concern:

MACTEC Engineering and Consulting, Inc. (MACTEC) requests a search of the Natural Heritage Database for the presence of endangered and threatened species, Illinois Natural Area Inventory sites for the above referenced property and immediately surrounding area. The site is Navy Property at Fort Sheridan in Highland Park, Illinois.

Thank you for your assistance in this matter.

Sincerely,

MACTEC Engineering and Consulting, Inc.


Carmen Y. Yung
Senior Environmental Scientist
MACTEC Engineering and Consulting, Inc.
1200 Jorie Boulevard, Suite 230
Oak Brook, Illinois 60523

APPENDIX H

Resumes

Carmen Y. Yung
Senior Environmental Engineer

Biosketch

Ms. Yung joined MACTEC in 1992 and is a Senior Environmental Scientist in MACTEC's Chicago Branch. Before joining MACTEC, Ms. Yung served as a Project Manager in the Illinois Environmental Protection Agency, assisting in the development and implementation of the leaking underground storage tank program in Illinois, and provided technical review and oversight of more than 2,000 remedial projects. Prior to this, she was the Executive Officer of the Hong Kong Government and was responsible for the organization and implementation of environmental programs.

Ms. Yung's experience includes technical and regulatory experience in soil and ground-water remediation, phase II site assessments, emergency responses, developing corrective action plans, and conducting Tiered Approach to Corrective Action (TACO) risk based assessments at leaking underground storage tank (UST) sites, property transfer sites and RCRA sites, including petroleum service stations, commercial and industrial facilities. Other experience includes: Phase I environmental site assessments, compliance surveys, UST/Above-ground Storage Tank (AST) Management, NPDES Permitting and leaking UST fund reimbursement. Ms Yung's geographical experience includes the states of Illinois, Indiana, and Wisconsin.

Education

B.S., Geology and Geography, University of Hong Kong, 1981

Experience Summary

Site Assessments

Ms. Yung's site assessment experience includes preparing and implementing work plans for leaking UST sites and conducting site investigations at commercial and industrial facilities for property transfers and RCRA facilities. Site assessment services have included preparation of health and safety plans, site reconnaissance, data gathering and reporting. Soil gas surveys, installation of soil borings and monitoring wells, air, soil and ground-water sampling and analysis were performed at various sites for data collection. Ms. Yung also has experience in developing corrective action plans and performing risk-based assessments using the TACO procedures developed by the Illinois Environmental Protection Agency. Such assessments have included the collection of site-specific data and/or the utilization ground-water models for Tier 1, 2 and 3 analyses to assess if site-specific cleanup objectives could be sought or whether remediation was necessary.

Corrective Actions at Leaking Underground Storage Tank Sites

Ms. Yung has experience in preparing and implementing conceptual corrective action plans for soil and ground-water remediation at leaking UST sites involving the release of petroleum products. Conceptual corrective actions have included soil excavation for landfill disposal, thermal treatment of soil, soil vapor extraction systems, bioremediation, hydrogen peroxide injection and ground-water pump and treat.

Regulatory Compliance at USTS and RCRA sites

Ms. Yung has extensive regulatory experience in UST/AST management, reporting, and regulatory compliance at leaking underground storage tank sites and RCRA sites. Ms. Yung is very familiar with

UST, leaking UST and site remediation programs, particularly in applying the relevant regulations to various sites in obtaining site closures. She has prepared numerous reports required by State and Federal agencies. Ms. Yung also has experience in negotiating with State and Federal agencies regarding work plans, reports, site specific cleanup objectives, site closures, interpretation of state regulations and reimbursement of corrective action costs.

Emergency Responses

Ms. Yung's emergency response experience includes design and implementation of emergency measures to mitigate migration of released products into the environment. Emergency response measures include installation of interceptor trench, installation of absorbent pads, vapor extraction and venting, and free product removal.

Project Experience

Soil Remediation, Former Gasoline Station, IL. As senior environmental scientist on this project, developed corrective action plan, selected soil removal contractors and coordinated soil remediation activities at the site, which included excavation and removal of 22,000 tons of contaminated soil. Prepared corrective action completion report, soil and groundwater modeling and prepared claims for reimbursement of corrective actions under the IEPA LUST Fund.

Corrective Action Plan Sampling & Preparation. As senior environmental scientist on this project, performed site assessment at a trucking terminal facility. Performed soil and groundwater sampling and prepared a corrective action plan consisting of injection of hydrogen peroxide for soil and groundwater remediation.

Site Assessments & Corrective Action. Project manager and coordinator at 35 petroleum service stations of an oil company in Chicago Area. Site assessment activities performed included soil gas surveys, installation of soil borings and monitoring wells, soil and ground-water sampling, and risk-based assessments utilizing TACO procedures. UST removal oversights and closure soil sampling and analyses were performed at various sites. Ms. Yung also prepared corrective action plans and implemented corrective actions including soil excavation, thermal treatment, soil vapor extraction and ground-water pump-and-treat. As project manager she has: prepared completion reports and risk-based assessment reports; provided advice on reporting compliance and interpretation of state regulations; negotiated with regulatory agencies on reporting requirements, site specific cleanup objectives and site closures, and; prepared reimbursement claims for reimbursement of corrective action costs.

Site Assessment and Corrective Action Design, Former Lumber Yard and Heating Oil Supply Facility, Milwaukee, WI – Senior Geologist. Site activities addressed releases from ASTs and USTs at the site. She was responsible for the preparation of the work plan for site assessment activities and the conceptual corrective action plan for bioremediation. Other project involvement included negotiating with regulatory agencies on the implementation of the plan, submitting claims for reimbursement of site assessment and corrective action costs.

Site Assessment & Corrective Action, Industrial Facility, Milwaukee, WI – Senior Geologist. Site assessment activities included installation of soil boring and monitoring wells, soil and ground-water sampling and analyses. Corrective action activities included soil excavation and disposal and soil sampling.

Site Assessment, UST & AST Closure Evaluation, and Compliance Review Survey, Hotel Facility, Lake Bluff, IL. Senior Geologist for this site assessment, UST and AST closure evaluation, and compliance

review survey for a hotel facility located in Lake Bluff, Illinois.

Corrective Action Plan, Hotel Facility, Oak Brook, IL. Prepared Corrective Action Plan and budget proposal for LUST Fund reimbursement for a LUST site in Oak Brook, Illinois.

Site Assessment Activities, Bank One Facility, Burlington, WI. Work performed included management and implementation of site assessment activities (soil and groundwater sampling) and preparation of Off-Site Discharge Exemption Request Application to Wisconsin Department of Natural Resources (WDNR) for site closure. Performed soil and groundwater sampling at Sam's Club in West Allis, Wisconsin which included preparation of annual groundwater sampling report and preparation of WDNR Form 4400-194 and Mann-Kendall Test to seek site closure using passive attenuation. Preparation of PECFA reimbursement for Overnight Transportation facility in Wisconsin.

Soil & Groundwater Sampling, Bank One Facility, West Allis, WI. Performed soil and groundwater sampling at Sam's Club in West Allis, Wisconsin, which included preparation of annual groundwater sampling report and preparation of WDNR Form 4400-194 and Mann-Kendall Test to seek site closure using passive attenuation. Preparation of PECFA reimbursement for Overnight Transportation facility in Wisconsin.

Petroleum Environmental Cleanup Fund Act Reimbursement Preparation, Overnight Transportation Facility, WI. Preparation of PECFA reimbursement for Overnight Transportation facility in Wisconsin.

Memberships

National Water Well Association

Mary E. Jank, C.P.G.
Principal Geologist

Biosketch

Ms. Jank has more than 18 years of experience as a professional geologist and project manager. Her experience has included Phase I and Phase II site assessments, well site supervision, borehole logging, soil sampling, water sampling, soil vapor surveys, dye studies in fractured bedrock, XRF of lead in soils, and UST removal and site closure. Her experience has encompassed CERCLA and RCRA projects, as well as voluntary cleanups under several state programs. Her responsibilities have included site and project management activities. Ms. Jank is experienced at hydrogeological interpretation and the mapping of constituent migration in numerous types of subsurface environments including karst and discontinuous tills. Her client and agency interface experience is extensive and Ms. Jank has been a key contributor during negotiations with the EPA, the Corps of Engineers and other state and local government agencies.

Ms. Jank has prepared quality assurance documentation under both CERCLA and RCRA for both industrial and government clients. Ms. Jank also has completed TACO Tier 2 risk assessments and has assisted in Tier 3 risk assessments at several sites. Ms. Jank has also completed CERCLA risk assessment and feasibility study documents, and participated in CERCLA community relations activities including preparation of community relation plans and public meetings.

Education

M.S., Geology, Michigan State University, East Lansing, MI
B.A., with Honors in Geology, Skidmore College, Saratoga Springs, NY

Licenses/Registrations/Certifications

Certified Professional Geologist, American Institute of Professional Geologists, #CPG-9941
Registered Geologist (RG), Missouri, #816
Professional Geologist (PG), Wisconsin, #891
Licensed Professional Engineer Geologist (LPG), Illinois, #196-000721
Licensed Professional Geologist (LPG), Indiana, #1966

Project Experience

Project Manager, Site Remediation Program Closure, 445 N. Sacramento

Project Manager for site investigation, remediation and closure activities under the Illinois Environmental Protection Agency (IEPA) Site Remediation Program (SRP) for two parcels at this address. The front portion of the site, a former manufacturing facility, is occupied by a former office building which was re-developed as a "green building". due to the "green building" concept, MACTEC was required to gain approval from the IEPA for engineered barriers which differed from the usual asphalt and concrete barriers. The City of Chicago submitted this site in 2002 for the Phoenix Awards competition for brownfield redevelopment. The site was recognized with the Region 5 Award and was a runner-up for the Grand Prize.

The second parcel is a vacant lot which was used as a construction debris dump by a former property owner. A Site Investigation Report has been submitted and a Remedial Objectives Report and Remedial Action Plan have been prepared. Removal of tar and associated soils, and excavation and removal of PNA and lead hot spots has occurred. Confirmation sampling was performed and additional soil removal will need to be performed.

Client: City of Chicago, Department of Environment

Project Manager, Site Remediation Program Closure of Cicero Site

Prepared all SRP program documentation for large industrial facility in Cicero, Illinois which is being redeveloped into a Junior High School. Site was divided into seven zones based on the construction schedule so that remediation and closure of each zone could be performed separately to meet construction needs. Work was performed as a subcontractor to another consultant. Remediation activities included the excavation and disposal of soil from all seven zones and gridded confirmation sampling to show that remediation was complete of Site is 2003 Phoenix Award winner for Community Impact.

Client: Mattson Associates, Limited

Project Manager, Site Remediation Program Closure

MACTEC has prepared Remedial Objectives Reports and Remedial Action Plans, overseen the remediation activities which consisted of soil excavation and removal, and the installation of engineered barriers, and completed Remedial Action Completion Reports for three Chicago Public Schools sites. MACTEC was asked to complete activities at these sites after the previous consultant had performed most site investigation activities and the sites had been entered into the Site Remediation Program.

Client: Chicago Public Schools

Project Manager, Spill Remediation and Closure

MACTEC performed investigation activities and prepared Remedial Objectives Reports and Remedial Action Plans for two ortho-xylene spills occurring within 3 months of one another at this manufacturing facility along Interstate 55 near Chicago. The remedial objectives reports used TACO Tier 2 risk assessment to reduce the amount of soil which would need to be remediated. Soil was remediated by excavation and removal. Confirmation sampling was performed based on a statistical formula which increased grid spacing as the size of the area increased. A closure report is being prepared.

Client: Confidential Manufacturer

Reviewer

Program Manager and reviewer for Phase I and Phase II Environmental Site Assessments, and other due diligence for clients including industrial, commercial and local government.

Client: Various

Technical Lead/Reviewer

Lead technical resource and reviewer for Phase I and Phase II Environmental Site Assessments, other due diligence, lift removals and remediation projects for major retailer.

Client: Confidential

RCRA Closure of former Oil Storage Area, Confidential Client, Indiana, Project Manager--Project involved additional investigation of former oil storage area found to be contaminated with chlorinated solvents. Remedial Action Plan was accepted by IDEM and the design of soil vapor extraction system was completed. MACTEC prepared specifications and obtained contractor bids. MACTEC was then asked to oversee system construction on a turnkey basis. Construction of the remedial system was completed.

Client: Confidential

Lead Geologist, Site Remediation Program Closure of Former Manufacturing Facility

Site underwent extensive remediation and a risk assessment was conducted previously. A draft NFR was issued with a provision for quarterly groundwater monitoring. The groundwater monitoring indicated that offsite impacts were present from groundwater which is not migrating in a down gradient flow direction. Fracture flow was suspected in the dolomite/limestone bedrock underlying the site. Geophysical data was

examined and a dye study completed. Based on these results, a remediation pilot study was recently completed and oxygen release compounds have been injected to begin remediation.

Client: Avaya, Inc. formerly Lucent Technologies

Technical Lead, Site Remediation Program Closure of Two Sites

Reviewed previous consultant documents, and entered the sites into the SRP program. At New Sullivan School, the site was entered into the SRP in June 2000. A previous Phase I and Phase II had been completed at the property which was an entire city block in extent. No additional sampling was determined to be necessary after consultation with the IEPA in the context of developing the Remedial Objectives Report/ Remedial Action Plan for the property. Removal of soil, (the soil removal was necessary for construction), and backfill with clean soil were the planned remedial activities. These activities were completed and documented the site was given a "No Further Remediation" letter in November 2000. At the Moos School site, entry into the SRP was only accomplished in January 2001 as the Chicago Public Schools did not acquire the property until December 2000. A previous Phase I and Phase II had been completed at the property. Additional sampling was completed in 2000 and in February 2001. The site was remediated and a No Further Remediation letter obtained in October 2001. MACTEC is currently performing services under the SRP program for three other Chicago Public School sites.

Client: Chicago Public Schools

Task Manager, Remediation of former Gas Station, Confidential Location

Responsible for coordination of field activities and confirmation sampling for large gas station remediation project. Over 8,000 cubic yards of soil were excavated and removed for clean closure. Gridded confirmation sampling was performed to verify clean closure. Also responsible for investigation and closure of offsite contamination and groundwater issues. Prepared closure documentation and LUST reimbursement package

Client: Confidential

Task Manager, Environmental Services at FUDS, Chicago, Illinois

Responsible for task order management of multiple environmental investigations and sampling activity at Chicago area sites. Prepared work plans for field investigation, performed data interpretation and prepared project reports. The eleven projects-to-date have included: Brownfields, UST classification, geophysical investigation, groundwater sampling, well installation, sump investigation and sampling, soil sampling and sediment sampling. Two of the projects involved multiple sampling rounds. The most recent project involved the decommissioning of a former FDA laboratory contaminated with asbestos, mercury, dioxin and perchlorate. The project was completed within a very tight timeframe despite additions to the scope.

Client: U.S. Army Corps of Engineers, Chicago District

Project Manager, Warehouse Parcel, Chicago, Illinois

Completed a SRP Site Characterization and Remedial Objectives report for this Brownfields site which is to be re-developed. IEPA SRP accepted the Site Characterization and the Remedial Objectives report. Free product at the site has been removed and confirmation sampling was completed. Final NFR letter received in August 2001. Client has requested assistance with an adjacent parcel which was entered into the SRP in June 2001. Remediation of this site has been performed and confirmation sampling completed. A completion report was submitted to the IEPA and a NFR letter was received.

Client: Confidential

Rosemont, Illinois Facility – Technical Support, Review

Provided technical support and review of alternatives evaluation and risk assessment for a former adhesives manufacturing facility contaminated with approximately 7,000 gallons of 1,1,1-trichloroethane leaked from underground storage tanks. Risk assessment was completed after groundwater treatment and removal of free product at the site.

Client: DAP Incorporated

Geologic and Hydrogeologic Pre-Design Investigation, Fort Wayne, Indiana, Supervisor--Oversaw personnel performing site investigations at former manufactured gas plant (MGP) site. The investigation included soil boring and monitoring well nest installation, plus hydraulic conductivity testing efforts as part of remedial design investigations involving DNAPL containment and recovery systems. Reviewed project documents including work plans and final report.

Client: Confidential Electric Utility

Geologic and Hydrogeologic Pre-Design Investigation, Hammond, Indiana, Supervisor--Oversaw personnel performing site investigations at former manufactured gas plant (MGP) site. The investigation included soil boring and monitoring well nest installation and sampling. Soil, DNAPL and ground water sampling were performed. Reviewed work plan and QAPP, and final report.

Client: Confidential Electric Utility

TACO Evaluation, North and Cicero Site, Chicago, Illinois

Primary author of TACO Tier 2 and Tier 3 evaluation prepared as a supplement to previous site risk assessment. IEPA has reviewed and accepted the evaluation and provided closure documentation for this former Brownfields site.

Client: Chicago Transit Authority (CTA)

Project Manager, Remedial Investigation/Feasibility Study, National Priorities List Landfill, Joliet, Illinois

Project Manager for an RI/FS at an NPL Landfill in Joliet, Illinois for a major PRP. Ms. Jank developed an alternative, focused RI scope of work; and helped the client with IEPA, USEPA Region V and Illinois Attorney General acceptance and revision of the Consent Decree. Limited and focused feasibility study has also been recommended and accepted by the client. The first round of sampling activities was completed and based on those results, a significant reduction in scope for the second round of sampling was negotiated with the IEPA and USEPA Region V.

Client: Confidential Chemical Manufacturer

Summary Report and TACO Evaluation, 74th and Wood, Chicago, Illinois

Primary author of summary report and TACO evaluation for this site which was remediated to allow construction to proceed in 1992 and 1993. Current evaluation was for a potential sale and lease-back

Client: Chicago Transit Authority

TACO Evaluation, Coatings Manufacturing Facility, Oak Forest, Illinois

Primary author of TACO Tier 2 evaluation prepared following previous UST removals and investigation.

Client: Confidential Coatings Manufacturer

Task Manager, RCRA Facility Investigation, Pharmaceutical Manufacturer Plant, Illinois

Task manager and primary author for Phase II RFI report for this large, integrated manufacturing plant with six SWMUs remaining in the Corrective Action process. Performed TACO evaluation resulting in proposed closure of all six SWMUs with little or no Corrective Action. Closure documentation was approved by the IEPA.

Client: Confidential Pharmaceutical Manufacturer

Project Geologist, RCRA Facility Investigation, Solvent Distribution Facility, Illinois

Conducted RFI investigation at chlorinated solvent distribution facility. RFI activities consist of the installation of 12 soil borings, soil and groundwater sampling. The purpose of the investigation was to complete the horizontal and vertical delineation of soils impacted with chlorinated solvents resulting from operations at the facility's three SWMUs.

Client: Confidential Solvent Distributor

Project Manager, Phase I and Phase II Site Assessments, Chemical Manufacturing Facilities, Seven States

Project Manager for fast-track Phase I and Phase II site assessments for a confidential industrial client. Draft Phase I and Phase II assessments were performed at 7 sites across the United States in four weeks in December 1993. From these assessments, remedial action recommendations and cost estimates were prepared.

Client: Confidential Chemical Manufacturer

Project Manager, Remedial Investigation/Feasibility Study, Former Ordnance Works (17,000 acres), St. Charles, Missouri

Site Manager and RI report manager for WSOW Superfund site in St. Louis, MO. Responsible for preparation of planning documents. Supervised sampling activities which included the completion of over 100 soil borings, surface water and sediment sampling and over 2,000 surface soil samples. Used results of dye trace, contaminant mapping, and conductivity testing to determine predominant contaminant migration pathways in karstic, fractured limestone. Primary author of RI report. Project Manager for continuing work at the Weldon Spring Ordnance Works NPL Site. Project work involved: the completion of a Conceptual Program Plan, Community Relations Plan, two Final RI reports (one for the Training Area), and a combined Risk Assessment. Assisted in implementing Community Relations Program for the site including production of newsletters, setting up an information repository and public meetings.

Assisted with Feasibility Study, Proposed Plan and ROD preparation. Supervised on-going groundwater studies and completed pre-design XRF survey of identified lead-contaminated areas. Responsible for providing assistance to the Corps of Engineers for joint RI report and FS for Operable Unit 2 Groundwater at the Weldon Spring Ordnance Works NPL site. Work was being performed jointly with the Department of Energy whose contractor is the primary author of both reports.

Client: U.S. Army Corps of Engineers, Kansas City District

Project Manager, RCRA Facility Investigation, Abandoned Lead Smelter and Battery Breaking Site, North Chicago, Indiana

Responsible for preparation of Work Plan and implementation of a RFI at an abandoned former lead smelter and battery breaking operation in Indiana. Developed and gained IDEM approval of an alternative scope of work incorporating x-ray fluorescence field measurements of lead in soils with confirmatory analytical testing.

Client: Confidential Industrial Client

Geologist and Task Manager, Design of Groundwater Pump and Treat System, New Jersey

Responsible for preparation of planning documents for the design and construction of a groundwater withdrawal treatment and reinjection system for the Goose Farm NPL site in New Jersey. Evaluated and helped develop alternative design and operating approaches needed to address cemented sand unit discovered at the site.

Client: Confidential Industrial Client

Project Geologist, Hydrogeologic Investigation, Former Truck Cleaning Facility Site, South Bend, Indiana

Responsible for environmental investigation of soil and groundwater affected by volatile organic compounds for an industrial client in Indiana. Developed work plan, QAPP, Data Management Plan, and Health and Safety Plan. Implemented and completed project. Project involved extensive contact and presentations to USEPA Region V and other public agencies.

Client: Confidential Industrial Client

Site Manager, Pre-Design Investigation, Ninth Avenue Superfund Site, Gary, Indiana

Pre-design investigation consisting of soil borings, geotechnical testing, groundwater testing, in support of Interim Site Remedy of slurry wall and groundwater treatment system.

Client: PRP Group

Project Geologist, Remedial Investigation/Feasibility Study, Production Area of Former Ordnance Works, St. Charles, Missouri

Site manager for last phase of well installation, soil sampling, air monitoring and other activities at COE Weldon Spring Training Area site. Used fracture trace analysis and dye trace results to choose optimal placement of bedrock monitoring wells. Assisted in preparation of Feasibility Study and Risk Assessment.

Client: U.S. Army Corps of Engineers, Kansas City District

Project Geologist, Hazardous Waste Site Characterizations, Eight DERA sites, Illinois and Wisconsin

Supervising project geologist for evaluation of COE DERA sites in Illinois and Wisconsin. Responsible for preparation of work plans, field investigation, and report preparation for seven former NIKE missile bases and one former ordnance works burning ground.

Client: U.S. Army Corps of Engineers, Buffalo District

Sampling Team Leader, Soil Vapor Survey, Chemical Plant Site, Detroit, Michigan

Supervised sampling activities for large soil vapor survey (more than 2000 points) for industrial client.

Client: Confidential Industrial Client

Training

Technical Marketing and Proposal Preparation, in-house seminar--IT Corporation, H. Silver and Associates, Inc. September, 1991 Itasca, Illinois

Health and Safety Training (40 hours), 8 hour Refreshers and Supervision of Hazardous Waste Operations (as required by OSHA 29 CFR 1910.120)

Red Cross First Aid and CPR, 2000

Practical Karst Hydrogeology with Emphasis on Ground Water Monitoring, Short Course NWWA, November 27-December 1, 1989. 3.0 CEU

The Engineer as Manager, Battelle Seminars Program, October 10-11, 1990, Chicago, Illinois

Employment History

Principal, MACTEC Engineering and Consulting, Inc. (formerly Harding ESE, Inc., formerly Environmental Science and Engineering, Inc.) Chicago, Illinois, 1996 to Present

Project Manager/Group Leader, IT Corporation, Chicago, Illinois, 1988 to 1996

Geologist, Chevron USA, 1982 to 1985